

1-1-1999

Effects of physical appearance on Year 7 students' perceptions of the intellectual and social competence of their peers

Helen Walmsley
Edith Cowan University

Follow this and additional works at: <https://ro.ecu.edu.au/theses>



Part of the [Educational Psychology Commons](#)

Recommended Citation

Walmsley, H. (1999). *Effects of physical appearance on Year 7 students' perceptions of the intellectual and social competence of their peers*. <https://ro.ecu.edu.au/theses/1203>

This Thesis is posted at Research Online.
<https://ro.ecu.edu.au/theses/1203>

Edith Cowan University

Copyright Warning

You may print or download ONE copy of this document for the purpose of your own research or study.

The University does not authorize you to copy, communicate or otherwise make available electronically to any other person any copyright material contained on this site.

You are reminded of the following:

- Copyright owners are entitled to take legal action against persons who infringe their copyright.
- A reproduction of material that is protected by copyright may be a copyright infringement. Where the reproduction of such material is done without attribution of authorship, with false attribution of authorship or the authorship is treated in a derogatory manner, this may be a breach of the author's moral rights contained in Part IX of the Copyright Act 1968 (Cth).
- Courts have the power to impose a wide range of civil and criminal sanctions for infringement of copyright, infringement of moral rights and other offences under the Copyright Act 1968 (Cth). Higher penalties may apply, and higher damages may be awarded, for offences and infringements involving the conversion of material into digital or electronic form.

USE OF THESIS

The Use of Thesis statement is not included in this version of the thesis.

**Effects of physical appearance on year 7
students' perceptions of the intellectual and
social competence of their peers.**

Helen Walmsley Dip Teach., B.Ed.

Faculty of Education

Edith Cowan University

15th March, 1999

ABSTRACT

This study was designed to investigate the effects of (a) the presence of an obvious disability, (b) physical attractiveness, and (c) the sex of peers on children's attitudes towards accepting a peer. A $2 \times 2 \times 2$ factorial design was used in which the three between-subject variables were (a) whether or not the subject had a disability, (b) whether the subject was attractive or unattractive, and (c) the sex of the respondent. A sample of 200 Year 7 students was divided into four groups containing 25 girls and 25 boys. The students were given background information, and shown a slide of a target female student, in which she was as follows: (a) attractive; (b) unattractive; (c) attractive and labelled disabled; or (d) unattractive and labelled disabled. They were then asked to complete an attitude survey which measured the three dependent variables: (a) in-school socialisation; (b) out of school socialisation; and (c) perceived academic competence. The three dependent variables measure the extent to which students would like to socialise with the target student (a) in school and (b) out of school, and their perception of her academic competence. A significant three-way interaction was found for perceived academic competence with the boys giving the lowest rating to the unattractive subject with a disability, and the girls giving this subject the highest rating. There was also significant disability by sex interactions for all three dependent variables, boys displayed more negative attitudes, whereas girls displayed more positive attitudes, towards the target student when she had a disability. In addition, there was a significant main effect for sex, with the boys displaying a much more negative attitude towards the subject than the girls.

DECLARATION

I certify that this thesis does not, to the best of my knowledge and belief:

- (i) incorporate without acknowledgment any material previously submitted for a degree or diploma in any institution of higher education;
- (ii) contain any material previously published or written by another person except where due reference is made in the text; or
- (iii) contain any defamatory material.

ACKNOWLEDGEMENTS

This thesis would never have been completed without the assistance and encouragement of my supervisor, Dr Amanda Blackmore. Amanda, your perceptive comments and prompt advice kept me on track, and on task, throughout the planning, researching and writing of this thesis. Whenever I had doubts about continuing, your support and encouragement inspired me to persevere, and for this, I owe you a huge debt of gratitude.

To the Principals, staff, and students of the schools which participated in this study, thank you. Without your assistance, this research could not have taken place.

Finally, to my husband Edward, and my children, Emily, George and Tom, thank you for the love, support, and patience you have shown me. For the past year you have rearranged your lives to fit in with me, and for this, I am truly grateful.

Helen.

CONTENTS

Chapter 1 - Introduction	8
Background to the study	
Significance	
Purpose	
Overview	
 Chapter 2 - Literature Review	 16
Disability and labelling effect	
Physical attractiveness	
Differences in attitudes between boys and girls	
The present study	
Hypotheses	
 Chapter 3 - Method	 43
Design	
Participants	
Instrument	
Materials	
Procedure	
Ethical considerations	
Scoring	
 Chapter 4 - Results	 52
In-school socialisation	
Out of school socialisation	

Perceived academic competence

Chapter 5 - Discussion 61

Discussion of the hypotheses

Limitations and implications for future research

Practical implications

Conclusion

References 76

Appendix A: Letter of Consent 84

Appendix B: Attitude Survey Form 86

Appendix C: Background Information 89

Appendix D: Photographs of the target student 95

CHAPTER 1

INTRODUCTION

Background

Over the past two decades there has been an increasing awareness of the need to more fully integrate people with disabilities into mainstream society. This has involved making the housing, education, and working and leisure opportunities of individuals with disabilities as normal as possible. The de-institutionalisation of accommodation has resulted in the replacement of large institutions with many smaller units located within the community, and the development of the foster parent programme. Access for people with disabilities to public buildings as well as private, commercial and entertainment facilities have been greatly improved. Anti-discrimination legislation is slowly enabling more people with disabilities to find employment opportunities that were previously denied to them.

Over the last decade there has been an increased commitment by Governments to social justice policies, which have resulted in increased support for the integration of children with disabilities into regular schools and classroom settings. The Beazley Report (1984) made provisions for children with disabilities to be educated in a range of educational settings from full-time education in a special school, to full-time education in an ordinary class. The recommendations of the Shean Report has led to the closure of some of these special schools, and an increase in the inclusion of students with disabilities into mainstream schools and classes.

The inclusion of students with disabilities into schools has resulted in many teachers and students having contact with students with disabilities for the first time. Lack of experience or lack of previous contact with students with disabilities, frequently results in teachers and peers categorising the student based

on disability labels or stereotypical views of people with disabilities. Labels implying deviance, deficit, or a handicap may be especially important because they often have a stigmatising effect. This results in people forming quite different expectations when dealing with individuals who have been labelled, and can lead to the development of unfavourable attitudes. Students who have been labelled as having a disability, whether physical or intellectual, are often treated differently by both adults and their peers, when compared to students who have not been labelled (Wright, 1988). Unfavourable attitudes by both teachers and students are considered to be an impediment to the successful integration of students with disabilities into schools.

Physical attractiveness can also influence the attitudes of students towards their peers. Attractive individuals are often believed to possess a wide variety of positive personal qualities, and these may be influential when making judgements about an individual's social competence or academic success. Research indicates that people who are attractive are often thought to be more intelligent, successful and socially competent than are unattractive people (Matter & Matter, 1989). Studies have shown that unattractive children are chosen less often as playmates, treated less favourably, and characterised by other children as having more negative social behaviours than attractive peers (Byrnes, 1987). As a result, children are more likely to want an attractive child as a friend, than an unattractive child.

By early adolescence, physical appearance has become increasingly important due to the physical and psychological changes that occur during the onset of puberty (Langlois & Stephan, 1981). Adolescents with different physical attributes evoke different appraisals from their peers. Children who are taller, or shorter, or are in some way atypical in appearance, may be treated more

negatively than their more "normal-appearing" peers. These appraisals affect the way in which children interact with each other, and their level of acceptance by their peers. Children who do not look the same as their peers, may be ridiculed, ignored, or rejected by their peers.

Children who have physical disabilities do not look the same as their peers. This can result in their peers developing unfavourable attitudes towards them, which then affects their social interactions. Unfavourable attitudes may result in the rejection of a student with disabilities by his or her peers. However, the successful integration of students with disabilities into regular schools is dependent on them being accepted by their peers. It is important therefore, that students' attitudes toward their peers with disabilities are known. The purpose of the present study is to determine the effects of physical appearance on the attitudes of early adolescent students.

Purpose

The study will investigate the effects of (a) the presence of an obvious disability, (b) physical attractiveness, and (c) the sex of peers, on Year 7 students' attitudes towards accepting a peer. Slides of a target female student who is (a) attractive, (b) unattractive, (c) attractive and physically disabled, or (d) unattractive and physically disabled will be used to determine if the students show an expectancy effect due to the target student's physical appearance. A survey will be used to determine the extent to which students would like to socialise with the target student (a) in school and (b) out of school, and their perception of her academic competence. The results will be used to determine if there is any expectancy effect due to attractiveness and/or disability of the target student. If there is an expectancy effect, the study will

determine if the effect is positive or negative. That is, whether it leads to a more positive attitude towards interacting with the target student, or whether it leads to a more negative attitude. In addition, the study will examine the influence of the expectancy effect on perceived social competence, as compared to perceived academic competence. For example, children might be willing to socialise with the target student, but they may be unwilling to work with her on school projects or assignments. The results will also ascertain if the attitudes of the boys towards the target student is different from the attitudes of the girls.

The study will also determine if there are interactions between these variables. For example, children may respond differently to a child labelled as disabled if she is attractive, from the way they would respond if she is unattractive. Boys may respond differently to an attractive or unattractive child from girls, or they may respond differently to a child with a disability from the way girls respond.

Significance

This study will be examining some of the factors that affect the acceptance of early adolescent children by their peers. The literature suggests that children use physical appearance as a factor when determining whether to make friends with an unknown peer (Langlois and Stephan, 1981). Children who are unattractive or who have physical disabilities, are often considered to be less intelligent, successful or socially competent than their peers (Matter and Matter, 1989). However, while much of the research in the literature has been on the effects of physical attractiveness, *or* on the effects of disability on the perceptions of children and adults, there appears to be very little research on the combined effects of both attractiveness and disability on

students' perceptions. By examining the effects of attractiveness or disability on perceptions, as well as the interactions that occur when a physical disability is combined with attractiveness or unattractiveness, the present study will provide new information on the effects of physical appearance on perceptions. This is of value in understanding factors that affect the acceptance of children with disabilities into schools.

There is evidence to suggest that the expectancy effect for both disability and attractiveness are stronger when explicit information about the individual is absent. When no other information is available, physical appearance may operate as a filter for social interactions and interpersonal attraction (Langlois and Stephan, 1981). However, once people have more information or have prolonged contact, direct or vicarious, with atypical appearing individuals, the expectancy effects are reduced or become non-existent. Nevertheless, children who are unattractive or who have a physical disability, may be rejected by other children, before any interaction occurs. This may mean that there is little or no opportunity to obtain further information about the individual, therefore the initial appraisal, based on appearance, may remain. It is important therefore, to investigate the strength of the initial reaction to disability or unattractiveness to determine whether further interaction with the individual is likely to occur.

Research on the long-term effects of rejection suggest that the expectations and responses of other people feed into a dynamic interaction or circular function whereby reactions evoked by a child's appearance influence the course of subsequent development, and future interactions (Lerner, Delaney, Hess, Jovanovic & von Eye, 1990). An attractive child, having experienced more positive reactions from others, can be expected to have developed a positive self-concept, personality, and behaviour patterns. In contrast, a child who has a disability or who is unattractive, may have

received more negative reactions, and may therefore have a low self-concept and poor socialisation skills. This may then lead to further rejection, as the child lacks the necessary skills to develop and maintain relationships with peers. If the present study shows that disability and/or unattractiveness lead to unfavourable attitudes in peers, there may be possible implications for the development and implementation of programs to teach students appropriate socialisation skills; as well as teaching individuals with disabilities socialisation skills to counteract their lack of positive experience with peers.

Overview

The first chapter of the thesis is a review of the literature relating to the effect of physical appearance on children's attitudes to their peers. Firstly, the effects of disability and labelling on attitudes is considered, and then there is an examination of the effects of physical attractiveness on attitudes. The differences in attitude due to the sex of the respondent is then discussed. Finally, the literature is linked to the present study, leading to the development of the hypotheses.

The second chapter consists of a description of the method used in the study. It includes a description of the design, instrument and materials; as well as details of the selection of the participants. The procedure for the administration of the survey is then discussed, followed by a discussion of the ethical considerations. The third chapter examines the results of the study. A table summarising the ANOVA results is provided, as well as graphs of the results for each of the dependent variables.

The final chapter contains a discussion of the results. The first section considers the results in terms of each of the hypotheses, and how this relates to the findings in the

literature. The second section outlines the limitations of the study, and discusses possible implications for future research. The final section considers practical implications for the inclusion of students with disabilities into mainstream schools and classes.

CHAPTER 2

LITERATURE

REVIEW

The present study is examining the effect of physical appearance on children's attitudes toward their peers. Previous researchers have taken a wide range of approaches to the study of attitudes associated with physical appearance. Some have examined attitudes toward disability labels, while others have examined attitudes toward hypothetical people and situations, or real people in the classroom or school environment. Numerous claims have been made based on this body of literature. This chapter will present some of the research which led these claims.

The first section will discuss effects of disability and labelling on attitudes. The next section will examine the effect of physical attractiveness on attitudes. Differences in attitude due to the sex of the respondent will be explored in the next section. The final section will provide the hypotheses which have been developed by linking the literature to the present study.

Disability and Labelling Effect

Interest in the attitudes of students toward students with disabilities has increased as Government policy has led to greater integration of students with disabilities into regular schools and classrooms. Educators agree that unfavourable attitudes by both teachers and students are a barrier to successful integration. There is also evidence that children with disabilities are rejected in regular classrooms and that being assigned to a low status may have a negative influence on the student's social, emotional, and intellectual development (Horne, 1988).

One of the problems faced by students with disabilities is the effect of being labelled and classified as having a disability. Labelling is the assignment of a person to a category (Reynolds & Mann 1987). According to Reynolds and

Mann (1987) these labels can serve either to place the student in supportive interventions, or to identify them as abnormal individuals who need to be removed from community life.

Individuals use labels to organise and categorise objects primarily on the basis of their perceived similarity on various dimensions. For example, very young children will often call all men "Daddy", because they have learnt that "Daddy" is a man, and therefore all men must be "Daddy". Similarly, all animals with four legs will be "dogs" until the similarities and differences in the category "dog" have been learnt. This categorisation heightens the perception of similarity within categories, and sharpens the perceptions of differences between categories. When the object of perception is social groups, the categorisation is often based on stereotypes of these groups (Schmelkin, 1988). This means that when others have characteristics that are different from those normally encountered, people often base their expectations on labels based on these characteristics. Some of these expectations are accurate, some are not. Some are explicit, some are barely acknowledged.

Generally, people who have had little or no contact with a person who is supposedly disabled, reveal a significant expectancy effect based on the label. This expectancy effect occurs when someone (the perceiver) has a pre-existing belief about another individual (the target) (Milich, McAninch & Harris, 1992). It is largely due to the attribution of stable traits to labelled individuals. For example, a person may expect all people with spina bifida to be in a wheelchair, because he or she has seen one person with spina bifida in a wheelchair, or a person may expect all children with Down Syndrome to be unable to read because some can't read.

The less familiar people are with a particular group, and the less they know about it, the more likely they are to think about the group in terms of a simple social stereotype. For example, "all people with physical disabilities also have mental disabilities", "or all children with ADHD are also hyperactive". These judgements can result in a positive bias towards, or a negative bias against the labelled person or group. A negative bias occurs whereby a host of unrelated negative attributes are associated with, and generalised from, one specific physical or mental characteristic to all others. (Livneh, 1988). For example, a person may think that all people with autism are nonverbal because they've encountered one nonverbal autistic child. People generalise from what they know to what they do not know, which can often result in overgeneralisation.

According to Wright (1988), three conditions are necessary for negative bias to occur:

1. Something that is observed must stand out sufficiently. This is called *saliency*. For example, a student with a leg missing will be more obvious than a student with a toe missing, when picking members of a swimming relay team.
2. The observed characteristic is regarded, for whatever reason, as negative. This is known as *value*. For example, a student with a leg missing may not be considered a disadvantage when picking the debating team, but may be considered a disadvantage when picking the swimming team.
3. The *context* of the characteristic is vague or sparse. For example, students may be unwilling to have a student in their swimming team if they are told merely that she has a leg missing. However, if all the things the student could do were described first, e.g., times for the various strokes, and then the missing leg was mentioned, the students may be more willing to choose the student for their team.

The greater the saliency and value of the characteristic, and the less the context is given, the more likely it is that negative bias will occur. If negative bias occurs, then the negative value assigned to the object of observation will be a major factor in guiding perception, thinking, and feeling to fit its negative character (Wright, 1988). For example, if a teacher believes that all children with Down Syndrome cannot read, then he or she may not even attempt to teach reading to a student with Down Syndrome. Similarly, if parents believe that their child's noncompliance is caused by ADHD, they may make no attempt to control the child's behaviour by training and rewarding appropriate behaviour.

These beliefs and attitudes that a person brings to an interaction influence the way the person perceives the messages conveyed by the interaction. For example, if a student with Down Syndrome fails to read, a teacher may claim it is because people with Down Syndrome can't read, rather than question the teaching methods used. Negative beliefs can also hinder positive interaction and positive attitude change (Yuker, 1988). For example, if a person believes that people with disabilities also have low intelligence, then, even in the face of contradictory evidence, that person is likely to persist in that belief. A person with a disability who demonstrates a high level of intelligence will be thought of as an exception, rather than the norm.

The lack of context in dealing with disabilities is the most common reason for the negative value given to persons with disabilities. For example, Wright (1988) discussed an experiment in which attitudes toward a person labelled with a particular problem (an amputee), became more positive when that person was described as functioning adequately than when the negative label stood alone. By describing the things the person could still do, the negative value of the loss of a limb was minimised.

Just being labelled as, or recognised as disabled, often results in negative consequences for the individual so labelled. Wright (1988) showed that attitudes toward a person described as being physically disabled and as having undesirable personality traits, were more negative than toward a comparably described able-bodied person. For example, a person in a wheelchair who tells lies, is viewed more negatively than an able-bodied person who tells lies. The disability label appears to increase the negative bias shown to the labelled person, even when the label (physical disability) is not related to the personality trait (lying).

Bromfield, Weisz, and Messer (1986), studied the effects of the "mentally retarded" label. They found that the label made people more likely to attribute failure to low ability, less likely to attribute failure to insufficient effort, and less likely to believe that failure could be reversed with increased effort. This occurred even when information placed the labelled children at the same level of ability as unlabelled children. For example, if two students had equal scores on a maths or spelling test, and one child was labelled "mentally retarded" and the other child was not labelled, people were more likely to attribute the labelled child's result to low ability, but the unlabelled child's results to insufficient effort.

In a study of children labelled ADHD, Harris, Milich, Johnston, and Hoover (1990), found that diagnostic labels may have adverse effects on children's perceptions of, or interactions with, their peers. In the study, they used 40 pairs of boys who ranged in age from 8 to 12. The boys in each pair were unfamiliar to one another. One of the students was randomly selected as the perceiver and the other as the target. In some of the dyads, the perceiver was falsely told that his partner had ADHD. The dyads then worked together on two tasks. After each task, all boys answered questions about their own and their partner's

performance. Children working with a partner labelled as ADHD showed less reciprocity, were more unfriendly, and were more negative, than they were to partners who were not so labelled. This occurred even though the partner did not really have ADHD. The authors concluded that expectancy effects in children can occur in response to even minimally stigmatising information, and that hearing a one-sentence description of a peer can influence how children feel about that peer.

Persons with non-visible disabilities tend to be more acceptable than those with visible disabilities. Normal-appearing mentally retarded persons tend to evoke fewer negative attitudes (Yuker, 1988). In a review of the literature, Matter and Matter (1989) reported that the research indicates that children with physical disabilities or handicaps are likely to be perceived as less desirable, less competent, or less intelligent than are normal-appearing children by both teachers and students. Teachers tend to underestimate the ability of visibly disfigured children, and students view children with visible disabilities such as amputee children as less desirable than they do normal-appearing children.

The characteristic appearance of children with Down syndrome is considered by some parents to be an obstacle to their full acceptance into school and society. In an attempt to reduce this social stigma, and the expectations associated with it, surgeons have been performing corrective facial plastic surgery on children with Down Syndrome (Marozas & May, 1988). Professionals who advocate facial plastic surgery for persons with Down Syndrome are focussing on the impact of appearance on these persons' social acceptance because they believe improvements in appearance will facilitate the social integration (Elkabetz, Katz & Kravetz, 1990).

While much of the above research on attitude is based on studying reactions to disabled strangers rather than friends, there is evidence that regular class children's attitudes to children with disabilities in a laboratory setting are related to their socialisation choices for a peer with a disability in their own classes (Alkin, 1992). Children have often had little contact with, or direct experience of, children with disabilities. In situations where contact occurs, the effects of labelling are likely to be significant until a context for the disability has been established, that is, until the child has determined what the child with the disability can and cannot do, and how that affects their relationship. Even when this has been established, children may seek to avoid having the stigma spread to them by avoiding close association with a disabled person (Susman, 1994).

Labels are used by people to organise and categorise objects, and these labels enable people to generalise from what they know to what they don't know. This means that people who have often had little or no contact with a person who is supposedly disabled, reveal a significant expectancy effect based on the label. The lack of context in dealing with disabilities is the most common reason for the negative value given to persons with disabilities. These negative values and beliefs can hinder positive interactions, limiting the acceptance of people with disabilities.

Society's emphasis on physical integrity, "body beautiful", personal appearance, health, and athletic achievements contributes to the stigmatising of children with disabilities. The emphasis on the "body beautiful" also contributes to the stigmatising of children and adults who are regarded as unattractive by their peers and others. The next section discusses some of the research into the effects of physical attractiveness on peer relationships.

Physical attractiveness

Research indicates that physically attractive children are perceived to be more intelligent, successful, and socially competent than are physically unattractive children, and/or children with various types of physical deformities or handicaps (Matter & Matter, 1989). When children interact, they use cues such as posture, body type, height, and clothing as well as facial cues to evaluate other individuals. Some or all of these cues may influence individuals' perceptions and subsequent treatment of others. In a review of the literature, Hilderbrandt (1982) concluded that body type has a significant influence on the perceptions and expectations of raters. Specifically, more positive traits are attributed to children of average build than to either chubby or thin children. For example, children have been found to distance themselves from chubby peers when asked to place a picture of themselves on a felt board containing a picture of either an average, a chubby, or a thin peer (Smith, 1985).

Facial attractiveness has an important influence on social interactions, including the areas of attitudes and expectations, interpersonal attraction, the provision of aid and rewards, and parent-child relations (Alley, 1993). Adults as well as children perceive physical attractiveness as an important attribute. Byrnes (1987) cited studies to show that attractive children receive more help, smiles, prosocial verbal comments and physical affection from adults, than unattractive children. However, physical attractiveness is not only seen as being important in interactions, but it is also perceived as being related to other characteristics.

The idea that a person's physical appearance mirrors the inner qualities of that person is not just a contemporary view. Through fairy tales, many generations of children have learned that princesses are beautiful as well as good and kind. Stepmothers and witches on the other hand, are ugly, evil and cruel. Langlois

and Stephan (1981) when discussing the physical attractiveness stereotype, point out that the viewpoint that pestilence, resulting in a scarred or marked appearance, is a punishment for sin and 'bad' behaviour is prominent in Greek and Hebrew literature.

In the modern media, there is a constant stream of advertisements extolling the virtues of various beauty products, and films and television programs frequently have physically attractive heroes and heroines. Although many advertisements picture people of various ethnic backgrounds, most still feature only attractive children and adults. Even fund-raising campaigns such as Appealathon or Telethon, which raise money for adults and children with disabilities, use physically attractive, disabled children in their advertising.

Eagly, Ashmore, Makhijani and Longo (1991) conducted a meta-analysis of 69 documents reporting 76 studies on the physical attractiveness stereotype, which indicated a link between beauty and goodness whereby physically attractive individuals were believed to possess a wide variety of positive personal qualities. The authors found that there was evidence to suggest that good looks induce strong inferences about social competence. They suggested that this may be because of a) the perception that attractive individuals elicit positive reactions from others, b) the perception of true covariation between attractiveness and social competence, and c) the media portrayal of attractiveness as critical to heterosexual popularity and social attention. The effect of attractiveness was weaker when additional information was received along with the attractiveness cues. As more information about a person is received, the attractiveness of that person becomes less important. Attractiveness is therefore of less importance in the perceptions of family and friends, than in the perceptions of complete strangers.

After reviewing studies in the literature, Byrnes (1987) found that children and adults perceive attractive children as being more intelligent, successful, adjusted and socially competent than unattractive peers. As a result, children and adults interact more positively with attractive than unattractive individuals, and this treatment begins at early infancy. Unattractive children are chosen less often as playmates, treated less favourably, and characterised by other children as having more negative social behaviours than attractive peers. Depreciating or excluding individuals who are seen as flawed, (for example, too tall, too heavy, wearing braces or glasses), may become part of a group's practices. This may result in a self-fulfilling prophecy whereby unattractive children may begin to feel unwanted, inferior or antagonistic in social situations, and therefore learn to behave in antisocial ways which limit further positive interactions with their peers.

For example, Langlois and Downs (1979), found that children show an early awareness of differences in physical appearance, and this affects their interactions with their peers. In their study, 64 3- and 5-year-old boys and girls were selected as subjects on the basis of physical attractiveness. Same age and sex, attractive (AA), unattractive (UU), and mixed-attractiveness (AU or UA) dyads were formed and observed in a semi-naturalistic play setting. They found that children paired with another child of the same level of attractiveness, exhibited more affiliative behaviours — including close proximity, smiling, eye contact and talking — than children paired with a peer of a different level of attractiveness. In addition, the highest amount of aggressive behaviours were seen in the 5-year-old male dyads in which at least one member of the pair was unattractive, and aggressive behaviours were observed twice as often in 5-year-old female UU dyads, than in any other type of 5-year-old female dyad.

In a study of students from three ethnic groups, Langlois and Stephan (1977) found that attractive children, regardless of their race, were liked more, were perceived as being smarter, and were rated higher on sharing and friendliness than were unattractive children. The subjects were 120 male and female, kindergarten and fourth-grade, Black-, Anglo-, and Mexican-American children. Each child was shown pretested photographs of an attractive and an unattractive stimulus child from each ethnic group, and asked to rate the child on several dimensions including physical attractiveness, liking preferences, and behavioural characteristics. Children from all three ethnic groups responded primarily on the basis of physical attractiveness rather than ethnicity. The physical attractiveness of the stimulus child was more important than his race in determining how children from each of three ethnic groups responded to him. The authors concluded that physical attractiveness appears to be a significant determinant of social attraction even as early as 3 years of age.

In a study of 56 fourth-grade children and 48 sixth-grade children Lerner and Lerner (1977) examined the effects of age, sex, and physical attractiveness on the children's actual and perceived social, personal, and academic development. Their results indicated that highly and moderately attractive children had more favourable interactions with peers than did their less attractive peers, and that less attractive children experienced more negative peer appraisals than did children of average or high attractiveness. In addition, teachers rated more attractive children as having higher academic abilities and as being better adjusted to the educational environment than children of average or low attractiveness. Cole and White (1993) conducted a study into peer impressions of children's competencies in five areas — scholastic competence, social acceptance, athletic competence, physical attractiveness, and behavioural conduct. The participants

were 1,249 fourth-grade students drawn from 50 public school classrooms in an American city. The results revealed that, in general, physical attractiveness was associated by boys with both boys' and girls' athletic competence, and this in turn was linked to their social acceptance. In other words, boys or girls who are good at sport are rated as attractive and socially competent by their male peers. For girls rating girls, however, physical attractiveness was associated with their scholastic competence and good behaviour, and this in turn was linked to their social acceptance. This suggests that girls who are physically attractive are considered by other girls to be better at school work, to be better behaved and to be more socially acceptable than are unattractive girls. For both the boys and the girls in this study, physical attractiveness was linked to social acceptance by their peers.

Similar results were obtained by Cole, Maxwell, and Martin (1997), when examining teacher, parent, peer, and self-ratings of social acceptance, academic competence, athletic competence, physical appearance, and behaviour conduct of 463 third- and 434 sixth-grade girls and boys. They found that for third-grade boys and girls, and sixth-grade girls, peer-nominated physical attractiveness was related to social acceptance by their peers. For sixth-grade boys the results revealed a greater differentiation of factors than for third-grade boys, but physical appearance was still a factor. Physical attractiveness is therefore an important factor in the socialisation of children.

Attractiveness can also have an effect on perceptions of academic competence. A meta-analysis conducted by Jackson, Hunter and Hodge (1995), investigated the relationship between physical attractiveness and intellectual competence. The authors found that attractiveness discriminates among individuals and establishes performance expectancies, without regard to whether attractiveness is relevant to

task performance. This means that physically attractive individuals are expected to be able to perform tasks better than unattractive individuals, regardless of whether attractiveness is related to the task or not. The meta-analysis also suggested that attractiveness had a stronger effect when explicit information about competence is absent than when it is present.

This was demonstrated in a study conducted by Lerner et al. (1990). They examined 153 early adolescents (11-12 years old), during their transition from elementary school to junior high school, to determine the relationship between physical attractiveness and academic competence. The authors investigated the relationship between physical attractiveness and objective and subjective measures of academic competence at the start of the school year, in the middle of the year, and at the end of the school year. The objective measure of academic competence was the California Achievement Test, while the subjective measures included adolescents' self-appraisals of their own competence, teachers' ratings of academic competence, and school performance-based grade point averages. The authors used LISREL VI procedures to see whether the patterns of covariation and autocorrelation the study revealed, provided support for a direct effect between physical attractiveness and teachers' ratings of the students. They found that there was a significant effect between physical attractiveness and teachers' ratings at the start of the year, but no significant effect later in the year.

This suggests that without much 'first-hand', direct knowledge of competence, teachers will be influenced by students' physical attractiveness levels. This means that variations among adolescents in their level of physical attractiveness may initially at least, place them at risk or advantage in regard to succeeding at school. Lerner et al. (1990) suggested that the effects of the teachers' appraisals may be circular in that their reactions are fed back to the students and then influence their

further development. A teacher may expect less from an unattractive student, who then has lower expectations placed on him or her, resulting in a decreased level or standard of work from that student. This then confirms the teacher's initial appraisal and so the circular effect continues.

Attractiveness can also have an effect on the attribution of blame for misbehaviour. Horvath and MacDonald (1989) studied 445 undergraduate students to determine if attractiveness had an effect on the students' perceptions of mild misbehaviour by 2- or 4-year-old children. They found that there was no effect for the 2-year-old children, but there was a main effect for attractiveness for the 4-year-old children. When the students were judging a child's behaviour, the attribution of responsibility to the child was greater for the more attractive child. Attractive children were considered to have more control over their behaviour than were unattractive children. However, a similar study found that transgressions committed by an unattractive child were often considered to be a more enduring, negative personality trait (Dion 1972). Attractive children were thought to have more control over their behaviour, and to be naughty deliberately, while unattractive children were thought to have a personality fault such that they would always be badly behaved.

During adolescence, physical attractiveness becomes even more potent as a determinant of social attraction because of the physiological changes that take place. Adolescence is a period of important, and often pronounced, changes in the individual's biological and psychological characteristics. During this period, many adolescents are concerned with themselves and their appearance and because of this, they assume that their peers are as obsessed with their behaviour and appearance as they are (Elkin, cited in Langlois & Stephan, 1981).

Friendships provide the opportunity for adolescents to receive feedback on how others see them, and this in turn can affect the development of their self-concept.

Keelan, Dion and Dion (1992) examined appearance anxiety in 102 women ranging in age from 18 to 24 years. Their results indicate that social success is related to appearance anxiety in childhood and adolescence. The women who reported that they were displeased with their appearance as a child and in adolescence, reported greater appearance anxiety and lower social success than the women who were pleased with their appearance. Attractiveness affects how people feel about themselves, which has an effect on their socialisation with their peers.

Teacher perceptions of attractiveness, can also affect students with disabilities. Ross and Salvia (1995) investigated the effects of photographs of attractive and unattractive boys and girls attached to otherwise identical psychological reports. A fictitious psychological report of an 8.8-year-old child was prepared which gave evidence of low average academic functioning, low IQ, some evidence of immaturity, and no significant behaviour problems. Multiple copies of the report were made, half with a boy's name and half with a girl's name. An attractive boy's photograph was attached to one-half of the male case studies while an unattractive boy's photograph was attached to the other half. The same procedure was followed for the female case studies. The 76 teachers taking part were asked to respond to four statements using a 6-point scale ranging from strongly agree to strongly disagree. The statements included recommending the child for placement in a class for educable mentally retarded students. They found that teachers recommended that placement in a special class was more appropriate for unattractive children. Furthermore, teachers felt that further psychological evaluation would reveal lower functioning by unattractive children,

and that unattractive children would experience more difficulties in peer relationships and in academic work.

The effects of attractiveness appear strongest and most straightforward in situations where other characteristics of the child are less obvious or have not yet had a chance to come into play. Research has shown that people perpetuate certain stereotypes about one another based on attractiveness, and these stereotypes have been shown not only to affect people's expectations but also to influence the way they react towards others. Having attractive friends is a way to validate one's own value system (being good) while enhancing one's own status by association (Bymes, 1987)

Differences in attitudes between boys and girls

As well as examining the effects of physical appearance on Year 7 students' perceptions of their peers, this study will attempt to determine whether there are differences in attitude depending on the sex of the respondent. That is, whether the attitude rating of the boys is significantly higher or lower than the attitude rating of the girls. The next section details some of the research that has taken place into the factors that both boys and girls take into consideration when choosing their friends.

From preschool to adolescence, children exhibit an increasingly strong tendency to play with the same-sex children. Feiring and Lewis (1991) cited research showing that children as early as 33 months show a preference for same-sex friends, and that this preference appears to persist into late childhood and adolescence. The authors conducted a longitudinal study of the social networks of 75 children at 3, 6, and 9 years of age in order to examine this preference in further detail. At each of these ages, mothers were asked to report on the number

of, and contact with, same- and opposite-sex kin, nonkin adults, and friends. The total number of friends altered significantly with age, with an increase in friends at age 9. Significant sex by age by sex of friend interactions were also found. The number of same-sex friends increased with age, while the number of opposite-sex friends decreased. At the same time, the amount of contact with same-sex friends increased with age, while contact with opposite-sex friends showed little change over time. The 9-year-old children therefore had a greater number of same-sex friends and spent more time with them, than did the 3- or 6-year-old children.

Huston (1983) examined some of the literature relating to peer influences on these friendship patterns. She found that children who play in cross-sex activities, for example, boys playing with dolls or girls with hammers, receive fewer positive peer interactions and more criticism from peers. As a result, children often inhibit 'sex-inappropriate' play in the presence of a peer. Hartup (1983) found that interactions between boys, as compared to girls, were likely to be more boisterous, more competitive, and last longer. As a result, girls often avoided contact with the boys owing to their roughness. This also affects the social networks, with boys congregating in large cohesive groups, whereas the girls are more often seen in pairs.

As well as differences in the preferences for the sex of friends, there are also differences in the factors that male and female children consider when choosing their friends. Cole et al. (1997) obtained teacher, parent, peer, and self-ratings of social acceptance, academic competence, athletic competence, physical appearance, and behavioural conduct on 463 3rd- and 434 6th-grade girls and boys. The results indicated that peers' appraisals of the social competence of sixth-grade boys was related to their athletic competence. This suggests that

peers may convey to their male classmates that popularity and athletic prowess are linked. For girls, social competence was linked to academic competence and good behaviour. There was a significant difference in the correlations for third and sixth graders in the relation of self-appraisals to the appraisals of peers. The self-appraisals of sixth-graders were much closer to those of their peers, than the self-appraisals of the third-graders were. This result suggests that between third grade and early adolescence, the importance of peer relationships rises dramatically.

The linking of social acceptance and athletic prowess was also found in a study conducted by Cole and White (1993). As discussed previously, the authors administered a peer-nominated assessment of five domains of children's competencies to 1,249 elementary school students. In examining the data for the social acceptance domain, the authors found that boys' level of social acceptance was generally associated with their athletic competence. The boys who were good at sport had a higher level of social acceptance by other boys and girls, than those boys who were not good at sport. The boys also used this athletic competence factor when determining the level of social acceptance of girls. However, the social acceptance of girls, by girls, was associated with scholastic competence and good behaviour. The authors suggest that these results may reflect differences in the social networks, in that boys tend to develop more extensive social networks, often through shared group activities, whereas girls may develop fewer but more intensive relations.

Moore and Boldero (1991) studied these social networks when examining the relationship between friendship variables and adolescent psychosocial development. They surveyed 223 students with ages ranging from 12 to 20, to determine their friendship networks, beliefs about friendship, functions of

friendship, and aspects of a best friendship. While factors such as similarity of personality, and common attitudes and values were found to be important in developing friendships, of equal importance was the specific function that the friendships fulfilled for the individual. There were significant sex effects, with females placing more importance on close friendships, and having a greater satisfaction with the number and closeness of their friendships than the males. In addition, females were more likely to maintain a close relationship with an absent friend.

Differences have also been reported in the attitudes of males and females to traditional gender roles in the classroom. McAninch, Crumbo, and Funtowicz (1996) evaluated whether traditional gender-role stereotypes pervade children's judgement of peers. One hundred and seventy-three predominantly Caucasian boys and girls, aged between 7 and 12, watched either a female or a male dyad discuss fundraising activities on videotape. In each dyad, one actor portrayed either masculine or feminine stereotyped behaviour, whereas the other actor was neutral. The results indicated that in terms of the subjects' rating of how good the idea was, the highest rating was obtained by the female actor in the masculine script. The authors suggest that this may be because it is relatively uncommon for a girl to be assertive, therefore she must have been considered very adept by the subjects. Interestingly, the female subjects also rated this target as the most bossy. In the masculine script, male subjects rated the targets as smarter than did the female subjects, while both the males and the females rated the targets in the feminine script as equally smart. Males appeared to have a more positive attitude to stereotypical masculine behaviour regardless of whether girls or boys were displaying it, than did the females.

McAuliffe and Dembo (1994) also examined traditional gender roles in the classroom, but from a different perspective. A questionnaire composed of eight scenarios describing a cooperative task, the behaviour of the target group member, and the target's gender, race and achievement level was administered to 216 fifth- and sixth-grade students, in order to investigate the status-based rules associated with race, gender and ability. The authors found that the act of describing a student as high achieving had such a strong effect on approval ratings that race or gender had little influence. Low-achieving, white females had the lowest approval ratings over three of the four measures used in the study. However, within this category, female subjects gave the low-achieving female target student a higher approval rating than did the males. This suggests that the female subjects were more supportive of a low-achieving student than the males subjects.

From preschool to adolescence, children exhibit an increasingly strong tendency to play with the same-sex children, and the importance of these peer relationships rises dramatically in early adolescence. However girls and boys appear to take different factors into account when choosing their friends. The level of social acceptance for boys is generally associated with their athletic competence, whereas for girls, it is generally linked to academic competence and good behaviour.

Summary

The literature has shown that people perpetuate certain stereotypes about one another based on attractiveness and on disabilities. Research indicates that physically attractive children are perceived as more intelligent, successful, and socially competent than are unattractive children. Children with physical disabilities are perceived as less desirable, less competent, or less intelligent than are normal-appearing children by both the teachers and peers. Stereotypes formed about attractive and/or disabled people have been shown not only to affect people's expectations but also to influence the way they react towards others. There is evidence that students with disabilities are rejected in regular classrooms, and that this may have a negative effect on the student's social, emotional, and intellectual development.

The research indicates that children show a preference for socialising with same-sex peers, and this preference increases with age. By early adolescence children have more friends of the same sex, and spend more time with them, than they do at earlier ages. When choosing their friends, the evidence suggests that boys and girls consider different factors. Boys appear to value physical competence, whereas girls appear to value good behaviour and academic competence.

The present study

This final section of the literature review will show how the present study arises out of, and addresses issues raised in the literature, and how, on the basis of the literature reviewed, certain predictions can be made about possible outcomes of the study.

The present study will examine the expectancy effects exhibited by regular class students in Year 7, to students labelled disabled and/or unattractive in the areas of

intellectual ability and social competence. This will be achieved by the administration of an attitude survey to four randomly assigned groups of 50 Year 7 students. Each group will be given background information and will then be shown a different slide of the same female student. The student in each of the slides will be either: (a) attractive; (b) attractive and labelled disabled; (c) unattractive, or; (d) unattractive and labelled disabled.

The evidence from the literature suggests that children are more likely to reject a student with an obvious disability, than a student without an obvious disability. It is expected that this study will replicate this finding. Students will be provided with background information about a new female student, and will then be shown slides of the student in or out of a wheelchair. Differences in attitude will be determined by the students' responses on an attitude survey.

In addition, the reviewed literature indicates that other factors, such as attractiveness, are influential in affecting children's attitudes toward their peers. The effect of the attractiveness of the target student on peers' attitudes will be investigated by the use of slides showing the subject as either attractive or unattractive. However, the literature also suggests that there is the possibility of a connection between the attractiveness of the target child and students' attitudes towards disabilities. In order to determine if students are less likely to reject a girl in a wheelchair if she is attractive, compared to unattractive, slides showing the subject as attractive and in a wheelchair, and unattractive and in a wheelchair will be used.

The third independent variable is the sex of the respondent. The literature suggests that early adolescent children prefer to socialise with same-sex peers. In addition, boys appear to value athletic competence in a peer, while girls appear to

value academic competence and good behaviour. If this is correct, then it might be expected that girls will respond more positively to a target child with an obvious disability than boys. The attractiveness of the target child could also affect the attitude of the boys, given that the literature suggests that boys use attractiveness as a factor in determining the athletic competence of peers. If attitudes toward a student with a disability are affected by attractiveness, there is the possibility that this effect could be positive or negative depending on the sex of the students. That is, the boys may rate a target child who has an obvious disability and who is also unattractive, more negatively than the girls.

The literature suggests that the effects of attractiveness are stronger when the target is female (Jackson et al. 1995, Leinbach & Fagot 1991, Smith 1985). For this reason, a female target was used in the present study to accentuate the effect of the attractiveness independent variable. The literature also suggests that adolescent children prefer same-sex peers (Feiring & Lewis 1991; Huston 1983), so it is therefore very likely that the boys will display a more negative attitude than the girls, to a female target.

Early adolescent students were chosen for the study because the literature suggests that the preference for same-sex friendships develop early in childhood and appear to be strongest by early adolescence. By middle to late adolescence, opposite-sex friendships and relationships have become more common and more acceptable. In addition, early adolescent children become more concerned about their appearance, and being part of the group than at earlier ages, and it is also the age they move into high school, and form new groups, and meet new peers. Late childhood to early adolescence was chosen, therefore, because it is likely to be a time when students are seeking peer acceptance, and are also at least as likely as

any other time to be affected by the three independent variables in this study, namely the sex of peers, their attractiveness, and whether they have a disability.

Attitudes towards socialisation in two different situations will be examined. The first type is in-school socialisation, which is the type of social interaction which is likely to occur within normal school hours, or as part of the normal school curriculum. It includes activities such as sitting next to the target child at recess, in the library or at a school concert. The second type of social interaction examined is the type likely to occur out of school. It includes activities such as sitting next to the target child at a Blue Light Disco, Pizza Hut, or on an excursion to a shopping centre. The literature suggests that segregation of the sexes is greatest in situations that have not been structured by adults. If this is true, the boys' attitude should be more negative to the target in the out-of-school situations, than in the more structured in-school situations. The students may also have a more positive attitude to socialising with a peer with a disability in school, because they may be seeking the teachers' approval. In contrast, they may seek to avoid socialising with a peer with a disability out of school, when the opinions and the approval of their peers may be of greater importance.

The literature suggests that children with disabilities, and/or those who are unattractive are considered to be less intelligent than 'normal' appearing peers. The study will examine attitudes toward the target child in terms of perceived academic competence. The survey measures academic competence by the willingness of students to be a partner with the subject in academic tasks such as maths assignments, science projects, and language contracts. If the students think that attractiveness and/or disability has an effect on intellect, this will be indicated by a difference in attitude toward the target student dependent on her appearance. This will be demonstrated by the unattractive and/or disabled

subject having a more negative rating than the attractive and/or non-disabled subject.

From the analysis of the literature, the following hypotheses have been developed and will be examined in this study:

Hypotheses

1. There will be a significant three-way (disability by attractiveness by sex) interaction for (a) in school socialisation, (b) out of school socialisation, and (c) academic competence.
2. There will be a significant disability by sex interaction for (a) in school socialisation, (b) out of school socialisation, and (c) academic competence.
3. There will be a significant attractiveness by sex interaction for (a) in school socialisation, (b) out of school socialisation, and (c) academic competence.
4. There will be a significant disability by attractiveness interaction for (a) in school socialisation, (b) out of school socialisation, and (c) academic competence.
5. There will be a significant difference in students' attitudes towards an attractive peer compared with an unattractive peer in terms of (a) in school socialisation, (b) out of school socialisation, and (c) academic competence.

6. There will be a significant difference in students' attitudes towards a peer with or without disabilities in terms of (a) in school socialisation, (b) out of school socialisation, and (c) academic competence.
7. There will be a significant difference between boys' and girls' attitudes towards a peer in terms of (a) in school socialisation, (b) out of school socialisation, and (c) academic competence.

CHAPTER 3

METHOD

Design

Two hundred Year 7 students, randomly selected from four primary schools, were used in this study. The students were randomly divided into four groups, each containing 25 males and 25 females. Each group of students were given background information about an unknown, Year 7 female student, and were shown a slide of the student. The information and slide varied according to which independent variable was being tested. All students then completed a survey to determine their attitude toward the student.

There were three between-subject independent variables in the study, two relating to the stimulus shown to the participants (a slide of a 12-year-old girl), and one relating to the respondents.

The first independent variable was whether or not the girl shown in the slide had a disability. Half the students were given background information which labelled the subject as physically disabled. In addition, the slide shown to these students showed a female student sitting in a wheelchair to demonstrate that she had a disability. The background information and slide shown to the other half of the students, contained no information about any disability.

The second independent variable was whether or not the girl shown in the slide was attractive or unattractive. Half of the students were shown a slide of an attractive girl, while the other half of the students were shown a slide of an unattractive girl.

The third independent variable was sex of the respondent. Half of the students were male, and the other half were female.

Table 1 Design of the study showing the eight cells.

	Labelled non-disabled	Labelled disabled
	<u>Group A</u>	<u>Group C</u>
Attractive	25 males	25 males
	25 females	25 females
	<u>Group B</u>	<u>Group D</u>
Unattractive	25 males	25 males
	25 females	25 females

The three dependent variables related to different aspects of acceptance by students of a peer. These were:

1. perceived academic competence, which was defined as a respondent's attitude toward completing academic tasks with the girl in the slide as a partner,
2. in school socialisation, which was defined as a respondent's attitude toward socialising with the girl in the slide within the school environment, and
3. out of school socialisation, which was defined as a respondent's attitude toward socialising with the girl in the slide out of the school environment.

Participants

In order to obtain a representative sample of year 7 students in schools within Albany, a total of 200 students were required. These student were randomly assigned to four groups, each with 25 males and 25 females. In order to achieve this, 282 letters (see Appendix A) were sent to all of the parents of Year 7 students in four Albany schools. Eleven replies were received from parents who refused permission for their children to participate in the survey. Of the remaining 271 students, three were withdrawn because they were Education Support students, and one student left the school before the names were selected. This left a total of 267 students, 125 females and 142 males.

Year 7 class lists were obtained from each of the participating schools. The names of the students not participating were crossed off each list. A code number representing the school and the teacher's name was placed beside each participating student's name. This enabled the collation of lists of students at each school to be made, after the students had been randomly assigned to groups.

The names of students were cut from each class list, and placed into two containers- one for the males and one for the females. One hundred names were then randomly drawn from each of the containers, and placed alternately, into four piles- Groups A, B, C, and D. This resulted in 50 names for each group- 25 males and 25 females. An additional eight names (four male and four female) from each school were drawn from the remaining names to act as reserves, in case of absences on the survey date.

Two lists were then made, one with the names of the students in each of the groups, and another with the names of students from each class, and the group they were in. This last list was used to enable the collection of students at each school when administering the survey.

Instrument

A suitable attitude scale could not be located in the literature that measured the areas of academic competence, in school socialisation, and out of school socialisation. As a result, a 30-item attitude scale was constructed to administer to the students (see Appendix B). The items for the scale were selected from a list of 45 statements of situations where Year 7 students would be in close physical proximity to each other. The statements were obtained by asking five Year 7 teachers for situations that occurred in their classes where students would be working in close proximity to each other. Further statements were obtained by asking a class of 30 Year 7 students for activities they participated in with their peers.

The 30 items selected were considered by the teachers and students, to be the most representative of usual Year Seven peer contacts. The items were divided into three broad areas, with 10 items in each area. These were:

- a) Academic competence- items 2, 4, 6, 10, 14, 16, 18, 20, 24, and 28.
- b) In school socialisation- items 1, 5, 8, 11, 15, 19, 21, 23, 26, and 29.
- c) Out of school socialisation- items 3, 7, 9, 12, 13, 17, 22, 25, 27 and 30.

The reliability of the attitude scale was tested in a pilot study by administering the scale, and obtaining data from 52 Year 7 students. The scale was analysed for internal consistency using Crombach's alpha coefficient. The alpha coefficient for academic competence was .93, for in school socialisation was .89, and for out of school socialisation was .89. This demonstrates that the items within each of the three areas show a strong internal consistency. Therefore, the scale was used in this form for the main study.

Materials

Four slides were used as stimulus pictures in the survey (see Appendix D). The same 12-year-old girl was used in each of the slides. She was sitting at the same desk, and had the same background in each of the slides. The slides were as follows:

- a) slide A, the girl was attractive and not sitting in a wheel-chair,
- b) slide B, the girl was unattractive and not sitting in a wheel-chair,
- c) slide C, the girl was attractive and sitting in a wheel-chair, and
- d) slide D, the girl was unattractive and sitting in a wheelchair.

Prior to this study, the slides were shown to a group of 30 Year 7 students who were asked to rate whether the student in the slide was attractive or unattractive. All students rated the student in the stimulus picture, in the correct category.

A script was written, detailing information about a fictitious girl student who was transferring to the school from a Perth school (see Appendix C). The script was developed by asking five Year 7 teachers about the typical home background of students in their classes. The information contained in the script was the same for each group, however Groups C and D received additional information labelling the student as disabled (unable to walk).

The script contained information defining the scale terms used in the survey, as well as instructions on how to complete the survey correctly.

Procedure

Prior to the researcher visiting the schools, the District Director was informed of the aims of the survey, and notified of the researcher's intention to contact principals, to request permission to work in the school. The Manager, Student Services, was given a copy of the research proposal and it was discussed in detail, so that the School Psychologists working in each of the target schools, could be informed in case of any unforeseen adverse effects.

An appointment was made with each of the principals of the target schools. An explanation of the research was given to each of them, as well as a copy of the research proposal. All the principals gave their permission for the research to take place, and for the Year 7 teachers to be approached to arrange a survey date and time.

Parents of students in Year 7 received a letter advising them of the project, and giving them the opportunity to withdraw their children from the project if they wished to do so (see Appendix A). In order to prevent the chance of students discussing the survey with other students, the survey was administered to all four schools on the same day. The principals and teachers were informed before the survey date of the survey requirements, so it was possible to administer the survey, and then leave for the next school without any undue delays.

The procedure on the day of the survey was as follows.

In two of the schools, the students were withdrawn, a group at a time, to complete the survey, before returning to their class for silent book-work. The class teacher and an assistant ensured there was no talking between the groups. In the other two schools, Groups A and B, and then Groups C and D were withdrawn at the same time, to the school library. While each group completed the survey, the other group read silently under the supervision of an assistant. As the background information for each of

Materials

Four slides were used as stimulus pictures in the survey (see Appendix D). The same 12-year-old girl was used in each of the slides. She was sitting at the same desk, and had the same background in each of the slides. The slides were as follows:

- a) slide A, the girl was attractive and not sitting in a wheel-chair,
- b) slide B, the girl was unattractive and not sitting in a wheel-chair,
- c) slide C, the girl was attractive and sitting in a wheel-chair, and
- d) slide D, the girl was unattractive and sitting in a wheelchair.

Prior to this study, the slides were shown to a group of 30 Year 7 students who were asked to rate whether the student in the slide was attractive or unattractive. All students rated the student in the stimulus picture, in the correct category.

A script was written, detailing information about a fictitious girl student who was transferring to the school from a Perth school (see Appendix C). The script was developed by asking five Year 7 teachers about the typical home background of students in their classes. The information contained in the script was the same for each group, however Groups C and D received additional information labelling the student as disabled (unable to walk).

The script contained information defining the scale terms used in the survey, as well as instructions on how to complete the survey correctly.

Procedure

Prior to the researcher visiting the schools, the District Director was informed of the aims of the survey, and notified of the researcher's intention to contact principals, to request permission to work in the school. The Manager, Student Services, was given a copy of the research proposal and it was discussed in detail, so that the School Psychologists working in each of the target schools, could be informed in case of any unforeseen adverse effects.

An appointment was made with each of the principals of the target schools. An explanation of the research was given to each of them, as well as a copy of the research proposal. All the principals gave their permission for the research to take place, and for the Year 7 teachers to be approached to arrange a survey date and time.

Parents of students in Year 7 received a letter advising them of the project, and giving them the opportunity to withdraw their children from the project if they wished to do so (see Appendix A). In order to prevent the chance of students discussing the survey with other students, the survey was administered to all four schools on the same day. The principals and teachers were informed before the survey date of the survey requirements, so it was possible to administer the survey, and then leave for the next school without any undue delays.

The procedure on the day of the survey was as follows.

In two of the schools, the students were withdrawn, a group at a time, to complete the survey, before returning to their class for silent book-work. The class teacher and an assistant ensured there was no talking between the groups. In the other two schools, Groups A and B, and then Groups C and D were withdrawn at the same time, to the school library. While each group completed the survey, the other group read silently under the supervision of an assistant. As the background information for each of

these groupings was identical, it was necessary only to ensure that the slide was not seen by the group reading.

The researcher read the *Background Information About the Student* (Appendix C) to each group. Although given the opportunity to do so, no students withdrew from the survey. Each group was then shown a slide of the same female student, either-attractive, unattractive, attractive and disabled, or unattractive and disabled (see Appendix D)

Each student was then given a copy of the survey, and the instructions for completing the survey were read by the researcher, to the group. The students were then given time to complete the survey. Help in reading the statements was given to any student who required it. Once the survey was completed by all students, the surveys were collected and scanned to ensure all statements were answered. The group was then dismissed, and the next group was collected.

Ethical Considerations

Informed consent to participate in the project was obtained from each student's parents/guardians. In addition, students were asked if they consented to taking part in the survey. Anonymity was ensured as no names were required on the attitude survey. In addition, once the survey had been administered and the results fully analysed, the lists of names of students in each group were burnt.

Once all groups had been surveyed, the researcher visited each class to explain the purpose of the survey to the students, and to answer any questions. In addition, the school psychologists had already been informed of the research, so that they were aware in case there were any unforeseen problems.

Scoring

To obtain scores for each of the subscales- in school socialisation, out of school socialisation, and academic competence- a numerical value was given to each of the attitude statements:

- a) Very unhappy 1
- b) Unhappy 2
- c) Neutral 3
- d) Happy 4
- e) Very happy 5

The data were then placed onto a spreadsheet, with a student identification number on the vertical axis, and the question number on the horizontal axis. This enabled the calculation of a mean score for each of the subscales. Each subscale therefore had a mean score ranging from 1 to 5. The results were then analysed using SPSS for Windows, Version 7.5.

CHAPTER 4

RESULTS

In this study, 200 Year 7 students were randomly assigned to four groups of 50 students (25 males and 25 females). Each group of students were given background information about a female, target student, and were then shown a slide of the target student. The students were then surveyed to determine their attitude toward the target student. The results were analysed to determine whether students' attitudes toward the target student in the photograph were influenced by: a) whether the target student had a physical disability, b) her attractiveness, or c) the sex of the respondent. These variables were examined in terms of three dependent variables, namely the target student's: a) in-school socialisation, b) out of school socialisation, and c) perceived academic competence. The respondents in this study were drawn from four schools, but they did not differ significantly among schools either on a) in-school socialisation $F(3,196)=1.10, p=.35$, b) out of school socialisation $F(3,196)=0.31, p=.82$, or c) academic competence $F(3,196)=0.63, p=.59$.

The means were calculated for each of the three dependent variables -- in-school socialisation, out of school socialisation, and perceived academic competence -- by adding up the scores for each item within each sub-scale, to get a total score. The means provided an attitude value for males and females in each of the four groups: (A) attractive/non-disabled, (B) unattractive/non-disabled, (C) attractive/disabled, and (D) unattractive/disabled. This information was then graphed in order to show the direction of any relationship between the variables. The graphs will be shown first, followed by the ANOVA results.

It was decided to perform ANOVAs on the three dependent variables for two main reasons. One was that the purpose of the research was to determine the effects of the independent variables on each variable separately. The other reason was that the three dependent variables were highly intercorrelated: in-school socialisation with academic competence at .88, out school socialisation with academic competence at .87, and in-school socialisation with out school socialisation at .93. A MANOVA was therefore not calculated because the data violated its assumption of multicollinearity. Instead, three ANOVAs were calculated and a Bonferroni adjustment was made to the alpha level by dividing it by the number of ANOVAs ($0.05/3 = 0.017$).

The graphs for each of the three dependent variables- perceived academic competence, in-school socialisation, and out school socialisation, are shown in Figures 1, 2, and 3.

In-school Socialisation

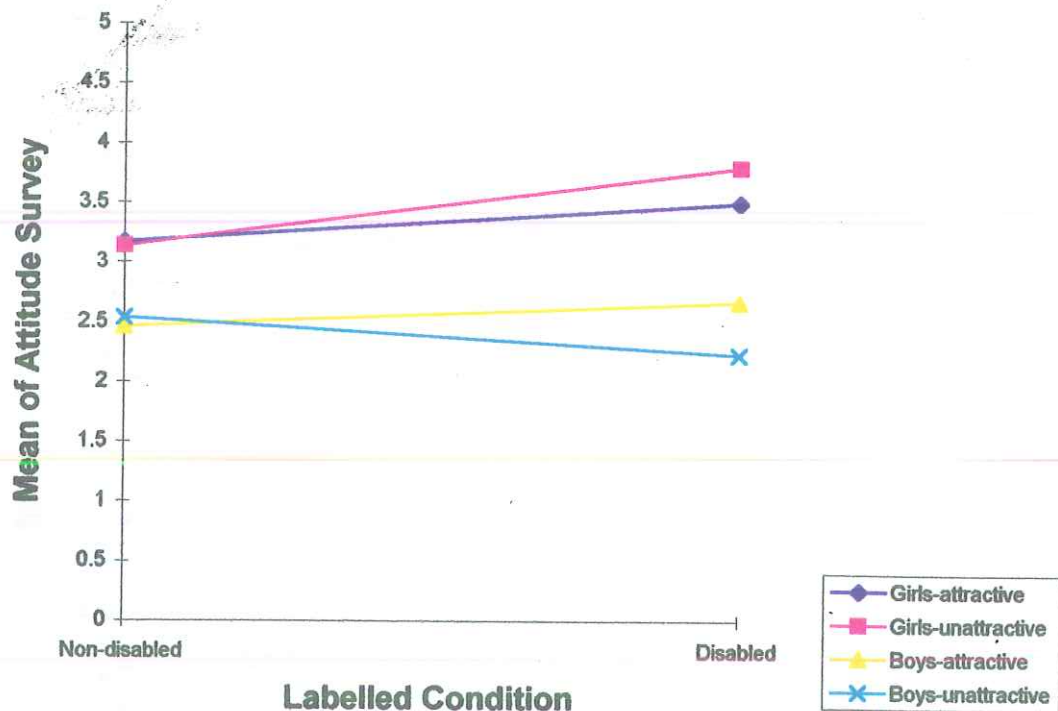


Figure 1 Means in each of the eight cells for in-school socialisation

The graph for in-school socialisation (Figure 1) reveals that overall, boys had a more negative attitude compared to the girls. Within this result, boys appear to have a more negative attitude to the girl in the slide when she has a disability than when she does not, whereas girls appear to rate the girl higher when she has a disability than when she does not.

Out of School Socialisation

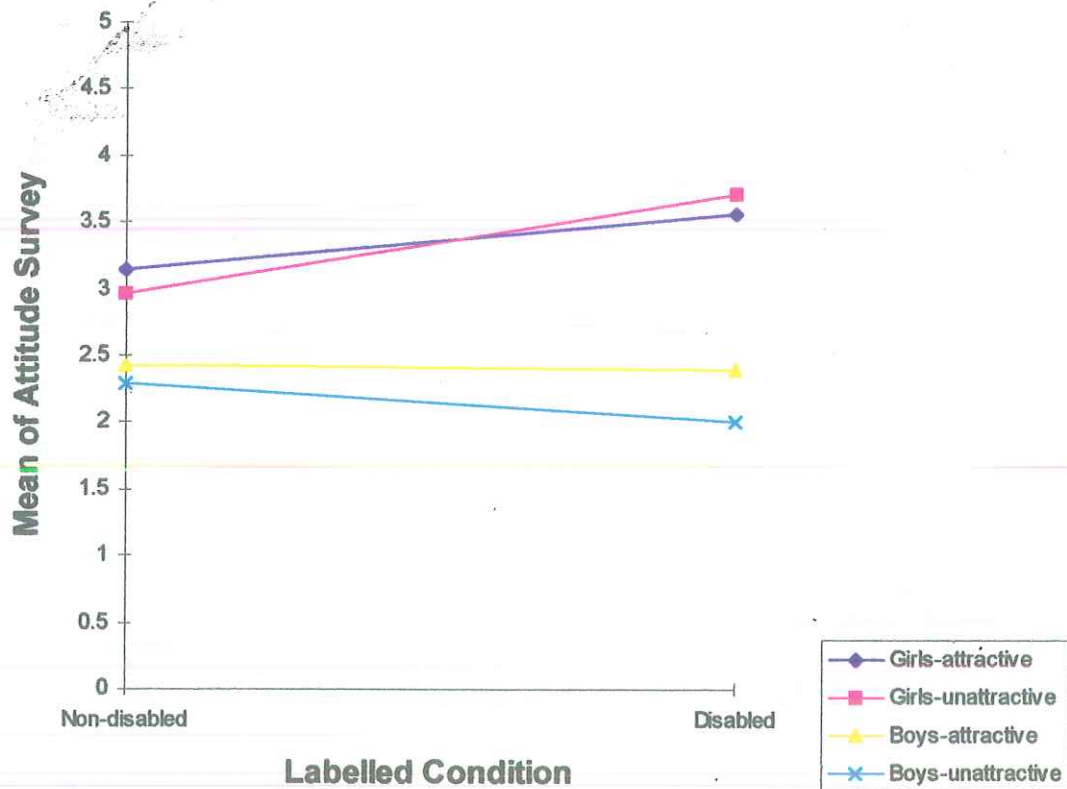


Figure 2 Means in each of the eight cells for out of school socialisation

Figure 2 reveals that the girls have a more positive attitude to the girl than do the boys. Once again the boys responded with a lower mean attitude score for the girl when she has a disability, than when she does not. The boys appeared to rate the attractive girl higher regardless of disability, whereas the girls appear to rate the unattractive girl higher when she has a disability, than when she does not.

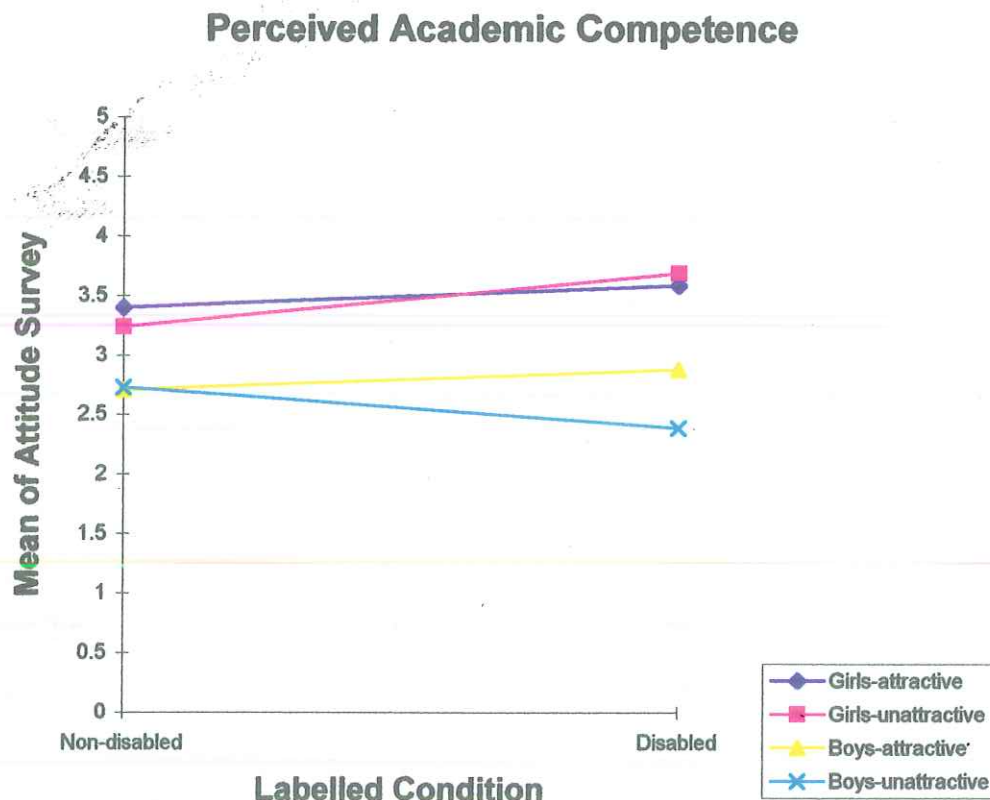


Figure 3 Means in each of the eight cells for perceived academic skills

Figure 3 shows that the boys had a lower mean attitude score for the girl when she has a disability, than when she did not. In addition, the boys appeared to give the lowest rating to the unattractive girl when she had a disability. In contrast, the girls appeared to give this girl the highest rating.

A 2 x 2 x 2 (Attractiveness x Disability x Sex) ANOVA was calculated on each of the dependent variables to see if these results were significant. The ANOVA results are summarised in Table 1. The results for in-school and out of school socialisation will be discussed together, followed by the results for perceived academic competence.

Table 1

Summary of ANOVA Results

	In school socialisation F(1,192)	Out school socialisation F(1,192)	Academic F(1,192)
Main Effects			
Attractive	0.26	1.15	4.80
Disability	5.06	2.98	0.06
Sex	87.58***	92.08***	72.59***
2-way Interaction			
Attractive x Disability	0.56	0.13	2.15
Attractive x Sex	1.68	1.48	3.56
Disability x Sex	7.81**	10.58***	8.50**
3-way Interaction			
Attractive x Disability x Sex	3.47	2.11	7.85**

*p<.017, **p<.01, ***p<.001

In and Out of School Socialisation Analyses

The two-way disability by sex of the respondent interaction was significant for both the in-school socialisation, and the out of school socialisation. For in-school socialisation the result was $F(1,192)=7.81, p=.006$. For out of school socialisation the result was $F(1,192)=10.58, p=.001$. The graph for both of these variables shows that the boys had a more negative attitude to the girl when she has a disability, than when she does not. However, the girls rate the girl higher when she has a disability than when she does not. This suggests that if a girl has a physical disability, other girls are more likely to be willing to socialise with her, both within the school setting and outside the school setting, than if she had no disability. On the other hand, boys whose overall attitude is more negative, are less inclined to socialise with a girl if she had a physical disability, than if she had no disability, regardless of whether the socialisation occurs in or outside the school setting.

There is a very strong effect for sex of the respondent for both in-school socialisation [$F(1,192)=87.58, p<.001$], and out of school socialisation [$F(1,192)=92.08, p<.001$]. An examination of Figures 1 and 2, shows that the girls had a significantly higher mean attitude to the girl than do the boys. This suggests that girls are more willing to socialise both in-school and out of school with a girl, and that the boys are less willing to socialise with a girl, at least initially, whether in school, or out of school.

Perceived Academic Competence Analysis

There was a significant three-way interaction of disability by attractiveness by sex of the respondent, $F(1,192)=7.85, p=.006$. To investigate the three-way interaction further, a two-way ANOVA was performed for girls and then for boys.

The ANOVA for girls revealed a significant main effect for disability [$F(1,96)=6.21, p=.014$], but no interaction or other main effect. In other words, girls rate the girl who has a disability more favourably than when she has none. This suggests that girls are more likely to be willing to socialise and work with a girl when she has a disability, than when she has none, and that this will occur regardless of whether the girl is attractive or not.

The ANOVA for boys revealed a significant disability by attractiveness interaction [$F(1,96)=7.63, p=.007$]. The main effect for attractiveness was significant [$F(1,96)=6.96, p=.010$], but the main effect for disability did not reach significance [$F(1,96)=2.98, p=.087$]. This shows that although boys did not distinguish between the attractive and unattractive girls when there is no disability, they display a significantly more negative attitude when a girl is unattractive and also has a disability.

As well as the three-way interaction in the ANOVA on academic competence, the two-way interaction of disability by sex of the respondent, $F(1,192)=8.5, p=.004$ was significant, and again there is a very strong main effect for sex of the respondent, $F(1,192)=72.59, p<.001$. As in the previous results, the boys had a more negative attitude to the girl compared to the girls' rating of the girl. This suggests that girls are more willing to work with another girl as a partner for academic tasks, than boys are.

CHAPTER 5

DISCUSSION

This chapter discusses the results of the study and the implication for future research and for classroom practice. The first section will consider the results in terms of each of the hypotheses, and how this relates to the literature. The limitations of the study, and possible future research developments will then be outlined. Finally, practical implications for the inclusion of students with disabilities into schools will be considered.

In this study, 200 Year 7 students from four school in a provincial Western Australian city, were randomly assigned to four groups of 50 students. Each group contained 25 males and 25 females. Each group of students were given background information about a female target student, and were then shown a slide of the target student. The students were then surveyed to determine their attitude toward the target student. The results were analysed to determine whether students' attitudes toward the target student in the photograph were influenced by: a) whether the target student had a physical disability, b) her attractiveness, or c) the sex of the respondent. These variables were examined in terms of three dependent variables, namely the target student's perceived: (a) in-school socialisation competence; (b) out of school socialisation competence; and (c) academic competence.

The first hypothesis stated that there would be a significant three-way (disability by attractiveness by sex) interaction for (a) in school socialisation, (b) out of school socialisation, and (c) academic competence. While the three-way interaction was not significant for in-school or out of school socialisation, it was significant for perceived academic competence. For the boys only, there was a significant disability by attractiveness interaction. The analysis showed that although the attractiveness of the subject did not affect their attitude if the target child had no disability, the boys displayed a significantly more negative attitude when she had a disability and was also unattractive.

This result may be explained by studies by Byrnes (1987), and Jackson et al. (1995) who found that sixth-grade boys link physical attractiveness to intellectual competence, with unattractive subjects being rated as having a lower intelligence than attractive subjects. This effect was strongest when the rater was male, and the target was female, as it is in the present study. In addition, studies by Cole and White (1993), and Cole et al. (1997) indicated that sixth-grade boys relate social competence to athletic competence. The boys may consider that a girl who is in a wheelchair is unlikely to be athletic, and therefore they may not wish to socialise with her, or work with her within the classroom. Yunker (1988) found that physically attractive disabled persons are rejected less often than those who are not attractive. Therefore the combined factors of a girl, who is probably not athletic, and who is probably not intelligent, may have led to the significantly more negative attitude shown by the boys.

In contrast, the results revealed that for girls, there was a significant main effect for disability, but it was in the reverse direction to the boys. This suggests that girls are more likely to want to work with a girl with a disability, than when she has none, which is opposite to the boys' results. There was no interaction or other main effect. In an examination of the literature, Adler, Kless and Adler (1992) found that girls' behaviour has historically included a focus on intimacy work, nurturance and emotional supportiveness. Bromfield, Weisz and Messer (1986) found that labelling may lead to a form of benevolence, that is, of 'going easy' on the labelled child. Susman (1994) suggests that there is a positive bias in society to be kind to disadvantaged persons, which may be based on an appreciation of the apparent successes people with disabilities have in meeting difficult challenges. The girls may have felt sympathetic and caring towards the subject with a disability, which may in turn have resulted in the positive attitude to working with her.

Another possible explanation for the girls' results that needs to be considered, is that they have been more inclined to give the socially acceptable response than the boys. Adler et al. (1992) argued that throughout elementary school, most girls try to attain the favour of their teachers. The girls may have felt that they had to give a positive rating to the subject with a disability because their teachers would approve of them giving the more acceptable response. However, this is unlikely to have occurred in this study however, as their responses to the survey were anonymous. In addition, because the variables were between-subjects and not within-subjects, the students in the study were not aware that there were alternative slides which depicted the subject with a disability or without a disability, and they were unaware that their responses were being compared. Therefore, this hypothesis can be dismissed.

The second hypothesis was that there would be a significant disability by sex interaction for (a) in school socialisation, (b) out of school socialisation, and (c) academic competence. The ANOVA results showed a significant interaction for all three dependent variables, supporting this hypothesis. For all three variables, the graphs indicate that the boys had a more negative attitude to the girl when she had a disability than when she did not. In contrast, the girls rated the girl higher when she had a disability, compared to when she did not.

The effect of labelling a child as having a disability often results in that child being seen more negatively than an unlabelled child. In a study of expectancy effects, Harris et al. (1990) found that children were more reserved, less friendly, and less socially involved with partners labelled ADHD when compared to unlabelled partners. Just being labelled as, or recognised as disabled, often results in negative consequences for the individual so labelled. Wright (1988) showed that attitudes toward a person described as being physically disabled and as having undesirable personality traits, were more negative than toward a

comparably described able-bodied person. The disability label appears to increase the negative bias shown to the labelled person, even when the label is not related to the personality trait. Milich et al., (1992) also found that expectancy effects occur amongst children, and that this affects how the perceiver feels about the target and the ensuing interaction. These results are consistent with the lower rating given to the labelled disabled subject by the boys.

It is also important to consider the male student's role in the primary school. Males are expected to be guarded in relationships with females. If the male responds too positively to the female, he is viewed by peers as being 'out of role'. If the target female student is disabled, sanctions against close contact are likely to be even more forcefully applied. Therefore any assistance given to a female student will be deemed as inappropriate.

In contrast, the girls showed a more positive attitude to the subject when she had a disability, than when she did not. There are a number of possible reasons for this unexpected result. According to Wright (1988) non-disabled people are often appreciative of the apparent successes of people with disabilities in meeting difficult challenges. Although the subject was in a wheelchair, the background information told the respondents that she could still swim, ride horses, play the guitar and play on the computer. The girls may have felt admiration for someone who has obviously overcome the limitations of her disability, and therefore they gave her a more positive rating.

Secondly, the subject with a disability may have produced a 'sympathy effect' in the girls but not in the boys. Susman (1994) suggests that the positive bias shown to people with disabilities is due to humanitarian reasons, with people often exhibiting favourable kinds of responses to people with disabilities, such as giving high

impression ratings or complying with their requests. Similarly, in a study to determine the expectancy effects of the 'mentally retarded' label, Bromfield et al. (1986) found that for sixth and ninth grade children, the label produced a benevolent effect, and increased a child's desirability as a friend. Smith and Larsen (1980) found that girls had significantly more positive attitudes towards the physically disabled in both integrated and non-integrated classrooms than did their male counterparts. The subject in a wheelchair had an obvious physical disability, which may have resulted in the girls feeling benevolent towards her, and therefore giving her a high positive rating when compared to the boys.

Finally, Adler et al. (1992) argued that throughout elementary school, most girls try to attain the favour of their teachers. The girls who viewed the slide of the subject with a disability, may have felt that their teachers would expect them to interact with a student with disabilities, and this may then have influenced the rating they gave to her. The subject with a disability would therefore have been given a more positive rating, when compared to the ratings given by the girls who saw the subject without a disability, or when compared to the boys' results. In addition, Susman (1994) found that students often feel duty bound to interact with disabled persons. The girls who saw the slide of the subject with a disability may have felt that it was their duty to interact with her, and therefore they responded more positively about interacting with the subject with a disability than the girls who saw the subject without a disability.

In summary, the girls showed a more positive attitude to the subject when she had a disability than when she did not. In contrast, the boys showed a more negative attitude to the subject when she had a disability. This difference in the responses given by the boys when compared to the girls, to the subject with a disability may be due to a number of factors. It could be because the girls have identified with, and admire the student's efforts to overcome her disability. It could also be due to the

girls' feeling sympathetic or benevolent towards the subject, or finally, it could be because the girls felt they were expected to respond positively, and therefore they did.

The third hypothesis was that there would be a significant attractiveness by sex interaction, the fourth hypothesis was that there would be a significant disability by attractiveness interaction, and the fifth hypothesis was that there would be a significant difference in students' attitudes towards an attractive peer compared with an unattractive peer. The results were analysed in terms of (a) in school socialisation, (b) out of school socialisation, and (c) academic competence. While the graphs indicate that the boys had a more negative attitude to the subject than did the girls, the attractiveness of the subject had little effect on this result. This was subsequently confirmed by the ANOVA results which indicated that the interactions were not significant for any of the variables. The main effect for attractiveness was also not significant.

The evidence from the literature suggested that physical attractiveness has an important influence on social interactions, attitudes and expectations. Studies by Lerner and Lerner (1977), Cole and White (1993), Cole et al. (1997), indicated that physically attractive children are perceived as being more socially competent than unattractive peers. This appeared to be due to the linking of physical attractiveness to athletic competence, which was then linked to social competence. In other words, attractive children were considered to be good at sport, which made them popular with their peers. In contrast, unattractive children did not receive a high rating for athletic competence and so received a lower rating for social competence. In the present study, the attractiveness of the subject did not affect the level of her social acceptance by either the boys or the girls. There are a number of possible reasons for this result. Firstly, the background information given to the students may

have limited the effects of the attractiveness cues. Lerner et al. (1990) found that physical attractiveness has the greatest effect on ratings when there is a lack of personal or behavioural information about the subject. In these circumstances, raters tend to rely on stereotypic associations between physical attractiveness and competency when making judgements. Eagly et al. (1991), concluded that the effect of attractiveness are weaker when additional information is received along with the attractiveness cues. The background information given to the students gave details of the subject's family, and her hobbies. This information may have enabled the students to form an opinion of the social competency of the subject, without the need to take her attractiveness into account. The students may have considered that someone who likes swimming, horse-riding, watching football and eating junk food, was worth having as a friend, regardless of her looks.

Secondly, the students may not use attractiveness cues as factors when making judgements about social competence. For example, if the students have unattractive peers who are athletic and/or popular, they may not consider attractiveness to be important in choosing potential friends. In addition, the background information lists several sports in which the subject participates. This may have led to a weakening of the link between physical attractiveness and athletic competence that Cole and White (1993), and Cole et al. (1997) discussed as being important in determining the social competence of peers.

Finally, the failure to find that attractiveness influenced attitude may be because the students did not consider the unattractive subject to be unattractive. Late childhood to early adolescence is a period of great change, and for some students, the opinions of peers become more important than those of family and figures of authority, such as teachers. The messy looks and the dirty clothing of the unattractive subject may have been considered an anti-authority stance, which may

have increased her attractiveness to some of the students. These students would therefore have had a positive attitude to socialising with the unattractive subject, therefore increasing the rating to a similar level to that of the attractive subject.

The present study also found that the attractiveness or unattractiveness of the subject did not affect the rating given for perceived academic competence. This is in contrast to the studies conducted by Langlois and Stephan (1977), Byrnes (1987), Cole and White (1993), and Jackson et al. (1995). The lack of a difference in rating may once again be due to the background information details. For both the attractive and unattractive subject, the background information stated that the subject enjoyed playing on the computer. This may have inferred to the students that the subject had a certain amount of competence, and therefore attractiveness was not taken into consideration in determining academic competence.

In contrast to the large amount of literature suggesting that physical attractiveness had a strong effect on attitudes [see especially the work of Cole and White (1993); Eagly et al. (1991); Byrnes (1987); Langlois and Stephan (1977); and Lerner and Lerner (1977)], this study found that attractiveness seems to affect attitude toward the subject only when disability is also a factor, and then only for male respondents.

The sixth hypothesis was that there would be a significant difference in students' attitudes towards a peer with or without disabilities in terms of (a) in school socialisation, (b) out of school socialisation, and (c) academic competence. This hypothesis is in keeping to the theories put forward by Wright (1988), Bromfield et al. (1986), and Harris et al. (1990), that being labelled as disabled results in a negative consequences for the labelled individual. Matter and Matter (1989) reported that children with physical disabilities or handicaps are likely to be perceived as less

desirable, less competent or less intelligent than are normal-appearing children by both teachers and students.

In the present study, there was no significant main effect for disability because of the sex by disability interaction. The girls and boys responded in opposite ways to the subject with a disability. The boys were more negative toward the subject with a disability, whereas the girls were more positive. When all the data was combined, the effects for the two may have cancelled each other out, leading to the lack of a significant effect for disability.

The last hypothesis was that there would be a significant difference between boys' and girls' attitudes towards a peer in terms of (a) in school socialisation, (b) out of school socialisation, and (c) academic competence. The ANOVA results indicate that there was a very strong main effect for sex of the respondents, with the boys exhibiting a more negative attitude towards the subject, than the girls.

The graphs indicate that the boys have a more negative attitude towards the subject regardless of her disability or attractiveness status, as compared to the attitude of the girls. This is consistent with the findings of Feiring and Lewis (1991), and McAninch et al. (1996) that early adolescent students have more same-sex friends, and spend more time with them than they did at earlier ages. Maccoby (1988) found that the preference for same-sex playmates, or the avoidance of cross-sex playmates appears to be linked to the intensity of teasing by peers when a child shows interest in a child of the other sex. As the subject was female, the boys would be less likely to want to socialise with her, regardless of her physical appearance or disability status. This would appear to explain the lower values given by the boys for the socialisation variables. In contrast, the girls would be more likely to socialise with new person to the school if she was female. Anecdotal evidence from discussions with teachers at the schools, suggests that the boys and girls form separate groups, and there is little

socialisation between the boys and the girls. This would explain why the boys gave low ratings, and why the girls gave high ratings for both socialisation variables.

The boys also gave the subject a significantly lower rating than the girls in terms of perceived academic competence. The boys in the present study had no information about the scholastic capabilities of the subject, and may therefore have given her a low rating due to the lower status boys confer to girls. This is consistent with the findings of McAuliffe and Dembo (1994) that unless the sex of the participant has been specifically disassociated from the performance of a task, the sex of the participant will become a factor in performance expectations, with female participants usually have the lower status. In addition, the questions about academic competence were embedded amongst the questions regarding socialisation, and therefore the students may have got into a response set, whereby they would mark the academic competence items down the same end of the scale as they were marking the socialisation items.

There are several limitations of the present study and future research could well consider several other important issues. Firstly, the use of a female subject in the study may have led to the overall negative attitude shown by the boys toward all of the subjects. It would be worthwhile to repeat the study using a male target student as well as a female target student. It would then be possible to determine if boys were more accepting of male students with disabilities than they are of a female student with disabilities. In addition, it would be of interest to see whether the positive attitude of the girls to students with disabilities, would also extend to boys with disabilities. This is of importance given that the girls gave the highest overall rating to the unattractive subject with disabilities.

Secondly, the sample only used Year 7 students. The attitudes of students who are approaching adolescence, may not reflect the views of the whole school population. Research by Bromfield et al. (1985) found that there were numerous significant effects of a 'mentally retarded' label among sixth and ninth graders, but only modest effects among third graders. Studies using groups of children from other year levels may find a greater acceptance of students with disabilities by both male and female students. Feiring and Lewis (1991) found that the number of same-sex friends increased with age, while the number of opposite-sex friends decreased. Further research using groups of students from younger year levels may find that the female subject has a higher level of acceptance by the male students than was found in the current study.

Finally, while the present study provides a good indication of the attitudes of Year 7 students in a small, provincial city, it would be of interest to repeat the study in a number of city and country districts and compare the results, to ascertain if attitudes toward students with disabilities differ in city and country areas. Further research in this area could also compare the results found in Government schools with those found in private schools. The teaching of values, such as respect and caring for others who are disadvantaged, are actively taught in many private schools. It would be of interest to see if these values are reflected in the students' attitudes toward their peers who may have disabilities.

Overall, the findings of the present study have implications for those responsible for the integration and inclusion of students with disabilities into mainstream schools. Firstly, the finding that girls show a positive attitude toward a student with a physical disability is extremely encouraging. This suggests that the girls accept and value all students, and do not show the negative stereotypes usually assigned to people with disabilities.

Secondly, the more negative ratings given by the boys to the female subject with a disability is of concern. Langer and Chanowitz (1988) argue that in order to overcome the expectancy effect, there is a need to see people as possessing many attributes on which they may be categorised in different situations, therefore preventing one characteristic from dominating the characterisation of the individual. This will prevent the disability as being seen as the most important characteristic of the person. The results of the present study suggest that current educational programs are not successful in changing boys' attitudes toward their peers with disabilities, or at least towards girls with disabilities, and are not overcoming the expectancy effect of disability labels.

Horne (1988) found that giving information about disabilities increases knowledge about the disability, but without contact with people with disabilities, it appears to have little or no effect on attitudes. Correspondingly, without information, contact has only limited positive effect or may even reinforce existing attitudes. As a result of this, programs that provide both contact and information are needed to modify participants attitudes toward peers with disabilities. To ensure programs result in positive interaction, Yuker (1988) stated that they should (a) involve cooperation and reciprocity, (b) be rewarding to both disabled and non-disabled participants, (c) result in the participants getting to know one another as individuals, and (d) persist over time. At the beginning of these programs, it will be necessary for educators to structure interactions to achieve these effects.

Lastly, two of the four schools used in the study had Education Support units or centres attached to the school. However, there was no significant difference between the schools, in the attitudes of the students toward a peer with a disability. This suggests that the presence of students with disabilities at a school, had neither a

positive nor a negative effect on the attitudes of the students at the school. If the contact with students with disabilities had been very positive, it would have been expected that there would have been a more positive attitude towards socialising and completing academic tasks with the subject with a disability, compared to the students with little contact at their schools. On the other hand, if contact with students with disabilities been negative, due to problems with the integration and inclusion of students with disabilities into the mainstream classes, it would be expected that there would have been a correspondingly more negative attitude shown by the students at these schools. Once again, educators may be required to implement programs and interventions to facilitate the development of positive attitudes toward peers with disabilities.

Susman (1994) argued that it is not the functional limitations of impairment which constitute the greatest problems faced by individuals with disabilities, but rather societal and social responses to it. In the present study, the boys showed a significantly more negative attitude toward the subject when she had a disability and was unattractive, when compared to their attitudes when she was attractive and/or had no disability. In contrast, the girls showed a significantly more positive attitude toward the subject when she had a disability. These results suggest that for boys, disability and attractiveness play an important role in the shaping of their attitudes toward their peers.

It is important that educators work towards reducing discriminatory behaviour shown toward people with disabilities, as well as unattractive or atypical-appearing individuals. Stereotypes formed about attractive and/or disabled people have been shown not only to affect people's expectations but also to influence the way they react towards others. There is evidence that students with disabilities are rejected in regular classrooms, and that this may have a negative effect on the student's social,

emotional, and intellectual development. In order to develop programs that will overcome discriminatory behaviour towards peers, it is important to identify the factors affecting students' attitudes toward their peers, such as disability, attractiveness and sex of the peer.

REFERENCES

- Adler, P. A., Kless, S. J., & Adler, P. (1992). Socialisation to gender roles: popularity among elementary school boys and girls. *Sociology of Education* 65(3), 169-87.
- Alkin, M. C. (Ed), (1992). *Encyclopedia of Educational Research* (6th ed.). New York:Macmillan Publishing Co.
- Alley, T. R. (1993). The developmental stability of facial attractiveness: New longitudinal data and a review. *Merrill-Palmer Quarterly*, 39(2), 265-278.
- Bromfield, R., Weisz, J. R. & Messer, T. (1986). Children's judgements and attributions in response to the 'Mentally retarded' label: A developmental approach. *Journal of Abnormal Psychology*, 98(1), 81-87.
- Byrd, E. K. & Elliott, T.R. (1988). Media and disability: A discussion of research. In Yuker, H. E. (Ed), *Attitudes toward persons with disabilities*. New York: Springer Publishing Co.
- Byrnes, D. A. (1987). The physically unattractive child. *Childhood Education*, 64(2), 80-85.
- Cole, D. A., Maxwell, S. E. & Martin, J. M. (1997). Reflected self-appraisals: Strength and structure of the relation of teacher, peer, and parent ratings to children' self-perceived competencies. *Journal of Educational Psychology* 89(1), 55-70.

- Cole, D. A. & White, K. (1993). Structure of peer impressions of children's competence: Validation of the peer nomination of multiple competencies. *Psychological Assessment*, 5(4), 449-456.
- Cooper, P. S. (1993). Self-esteem and facial attractiveness in learning disabled children. *Child Study Journal*, 23(2), 79-89.
- Dion, K. K. (1972). Physical attractiveness and evaluations of children's transgressions. *Journal of Personality and Social Psychology*, 24, 207-213.
- Eagly, A. E., Ashmore, R. D., Makhijani, M. G., & Longo, L. C. (1991). What is beautiful is good, but....: A meta-analytic review of research on the physical attractiveness stereotype. *Psychological Bulletin*, 110(1), 109-128.
- Elkabetz, R., Katz, S., & Kravetz, S. (1990). Student teachers' evaluation of slides of children with Down syndrome: impact of facial plastic surgery, labelling and factual knowledge. *International Journal of Rehabilitation Research*, 13(3), 258-261.
- Feingold, A. (1982). Physical attractiveness and intelligence. *The Journal of Social Psychology*, 118, 283-284.
- Feiring, C., & Lewis, M. (1991). The development of social networks from early to middle childhood: Gender differences and the relation to school competence. *Sex Roles*, 25(3-4), 237-53.

- Harris, M. J., Milich, R., Johnson, E. M., & Hoover, D. W. (1990). Effects of expectancies on children's social interactions. *Journal of Experimental Social Psychology*, 26, 1-12.
- Hartup, W.W. (1983). Peer relations. In Mussen, P.H. (Ed), *Handbook of child psychology*, Vol. 4. New York: John Wiley & Sons.
- Hildebrandt, K. A. (1982). The role of physical appearance in early development. In H.E. Fitzgerald, B. Lester, & M. Yogman (Eds.), *Theory and research in behavioural paediatrics*, Vol. 1. New York: Plenum Press.
- Horne, M. D. (1988). Modifying peer attitudes toward the handicapped: Procedures and research issues. In Yuker, H. E. (Ed), *Attitudes toward persons with disabilities*. New York: Springer Publishing Co.
- Horvath, T., & MacDonald, E. L. (1989). Evaluation of a young child's behaviour: Effects of attractiveness and sex. *Perceptual and Motor Skills*, 69, 1051-1056.
- Huston, A.C (1983). Sex-typing. In Mussen, P.H. (Ed), *Handbook of child psychology*, Vol 4. New York: John Wiley & Sons.
- Jackson, L. A., Hunter, J. E., & Hodge, C. E. (1995). Physical attractiveness and intellectual competence: A meta-analytic review. *Social Psychology Quarterly*, 58(2), 108-122.

- Keelan, J. P., Dion, K. K., & Dion, K. L. (1992). Correlates of appearance anxiety in late adolescence and early adulthood among young women. *Journal of Adolescence*, 15(2), 193-205.
- Langlois, J. H., & Cookie, S. (1977). The effects of physical attractiveness and ethnicity on children's behavioural attribution's and peer preferences. *Child Development*, 48, 1694-1698.
- Langlois, J. H., & Downs, A. C. (1979). Peer relations as a function of physical attractiveness: the eye of the beholder or behavioural reality? *Child Development*, 50, 409-418.
- Langlois, J. H., & Stephan, C. W. (1981). Beauty and the Beast: The role of physical attractiveness in the development of peer relations and social behaviour. In S. S. Brehm, Kassin, S. M., & Gibbons, F. X. (Eds.), *Developmental social psychology: Theory and research*.
- Langer, E. J. & Chanowitz, P. (1988). Mindfulness/Mindlessness: A new perspective for the study of disability. In Yuker, H. E. (Ed), *Attitudes toward persons with disabilities*. New York: Springer Publishing Co.
- Leinbach, M. D., & Fagot, B. I. (1991). Attractiveness in young children: Sex-differentiated reactions of adults. *Sex Roles*, 25(5/6), 269-284.
- Lerner, R. M., Delaney, M., Hess, L. E., Jovanovic, J. & von Eye, A. (1990). Early adolescent physical attractiveness and academic competence. *Journal of Early Adolescence* 10(1), 4-20.

- Lerner, R. M., & Lerner, J. V. (1977). Effects of age, sex, and physical attractiveness on child-peer relations, academic performance, and elementary school adjustment. *Developmental Psychology*, 13(6), 585-590.
- Livneh, H. (1988). A dimensional perspective on the origin of negative attitudes toward persons with disabilities. In Yuker, H. E. (Ed), *Attitudes toward persons with disabilities*. New York: Springer Publishing Co.
- McAninch, C. B., Milich, R., Crumbo, G. B., & Funtowicz, M. N. (1996). Children's perception of gender-role -congruent and -incongruent behaviour in peers: Fisher-Price meets Price Waterhouse. *Sex Roles: A Journal of Research*, 35(9-10), 619-38.
- McAuliffe, T. J., & Dembo, M. H. (1994). Status rules of behaviour in scenarios of peer learning. *Journal of Educational Psychology*, 86(2), 163-72.
- Maccoby, E.E., (1988). Gender as a social category. *Developmental Psychology*, 24,(6), 755-765.
- Marozas, D. S., & May, D. C. (1988). *Issues and practices in special education*. New York: Longman.
- Matter, D. E. & Matter, R. M. (1989). If beautiful is good, then ugly must be... confronting discrimination against the physically unattractive child. *Elementary School Guidance and Counselling*, 24(2), 146-152.

- Milich, R., McAninch, C. B., & Harris, M. J. (1992). Effects of stigmatizing information on children's peer relations: Believing is seeing. *School Psychology Review*, 21(3), 400-409.
- Moore, S., & Boldero, J. (1991). Psychosocial development and friendship functions in adolescence. *Sex Roles* 25(9-10), 521-36.
- Reynolds, C. R. & Mann, L. (Ed). (1987). *Encyclopedia of special education* (Vol 2) Brisbane: John Wiley & Sons.
- Ross, M., & Salvia, J. (1995). Attractiveness as a biasing factor in teacher judgements. *American Journal of Mental Deficiency*, 80(1), 96-98.
- Schmeikin, L. P. (1988). Multidimensional perspectives in the perception of disabilities. In Yuker, H. E. (Ed). (1988). *Attitudes toward persons with disabilities*. New York: Springer Publishing Co.
- Smith, D.B., & Larson, P.A. (1980). Adolescent attitudes toward disabled persons in an integrated and nonintegrated school setting. *Education*, 100(4), 390-94.
- Smith, G. J. (1985). Facial and full-length ratings of attractiveness related to the social interactions of young children. *Sex Roles*, 12(3/4), 287-293.
- Susman, J. (1994). Disability, stigma and deviance. *Social Science and Medicine*, 38(1), 15-22.

Wright, B. (1988). Attitudes and the fundamental negative bias: Conditions and corrections. In Yuker, H. E. (Ed). (1988). *Attitudes toward persons with disabilities*. New York: Springer Publishing Co.

Yuker, H. E. (1988). The effects of contact on attitudes toward disabled persons: Some empirical generalisations. *Attitudes toward persons with disabilities*. New York: Springer Publishing Co.

APPENDIX A

LETTER OF CONSENT

March, 1998

Dear Parents

My name is Helen Walmsley, and I am currently studying for my Master of Education at Edith Cowan University.

As part of my studies, I am examining some of the things that influence Year 7 students, when they make friends with children their own age. My research will enable schools to take these factors into account when planning class structures, or in placement of new students within schools.

Year 7 students will be shown a picture of a new student, and will be given some of background information about this student. They will then complete a short questionnaire to see if they would like to be friends with the student.

The whole process will take about 15 minutes. In order that the students' answers remain confidential, **no names will be required on the questionnaire.**

I would like all the Year 7 students at this school to participate. However, if you **DO NOT** want your child to participate in this project, could you please sign and return the note below. If you have any questions regarding this project, please contact me on 9841 1221 (a/h).

Helen Walmsley

I **DO NOT** want my child _____ of
_____ school, to take part in the project.

Signed _____

APPENDIX B

ATTITUDE SURVEY

Attitude Survey

Group: _____

Male/Female

Please circle the response that best describes how you would feel if the student I have been talking about:

- | | |
|--|---|
| 1. Sat next to you in class | Very unhappy unhappy neutral happy very happy |
| 2. Was your partner for sport | Very unhappy unhappy neutral happy very happy |
| 3. Sat next to you at Pizza Hut | Very unhappy unhappy neutral happy very happy |
| 4. Was your partner for a maths assignment | Very unhappy unhappy neutral happy very happy |
| 5. Sat next to you at lunch time | Very unhappy unhappy neutral happy very happy |
| 6. Was your partner for an assembly item | Very unhappy unhappy neutral happy very happy |
| 7. Sat next to you on the bus home from school | Very unhappy unhappy neutral happy very happy |
| 8. Was your partner for free time activities | Very unhappy unhappy neutral happy very happy |
| 9. Sat next to you at the cinema | Very unhappy unhappy neutral happy very happy |
| 10. Was your partner for an oral language presentation | Very unhappy unhappy neutral happy very happy |
| 11. Sat next to you at recess time | Very unhappy unhappy neutral happy very happy |
| 12. Was you partner on a shopping centre excursion | Very unhappy unhappy neutral happy very happy |
| 13. Sat next to you at a birthday party | Very unhappy unhappy neutral happy very happy |
| 14. Was your partner for a language contract | Very unhappy unhappy neutral happy very happy |
| 15. Sat next to you during a school concert | Very unhappy unhappy neutral happy very happy |
| 16. Was your partner for a library assignment | Very unhappy unhappy neutral happy very happy |
| 17. Sat next to you at Blue Light Disco | Very unhappy unhappy neutral happy very happy |
| 18. Was your partner for a science project | Very unhappy unhappy neutral happy very happy |

19. Sat next to you at the swimming carnival	Very unhappy unhappy neutral happy very happy
20. Was your partner for a spelling quiz	Very unhappy unhappy neutral happy very happy
21. Sat next to you at during free time	Very unhappy unhappy neutral happy very happy
22. Was your partner on a class picnic	Very unhappy unhappy neutral happy very happy
23. Sat next to you at assembly	Very unhappy unhappy neutral happy very happy
24. Was your partner for a social studies contract	Very unhappy unhappy neutral happy very happy
25. Sat next to you at the interschool sports carnival	Very unhappy unhappy neutral happy very happy
26. Was your partner for computer games	Very unhappy unhappy neutral happy very happy
27. Sat next to you at Kentucky Fried Chicken	Very unhappy unhappy neutral happy very happy
28. Was your partner for an art project	Very unhappy unhappy neutral happy very happy
29. Sat next to you in the library	Very unhappy unhappy neutral happy very happy
30. Was your partner on a visit to the Museum	Very unhappy unhappy neutral happy very happy

APPENDIX C

BACKGROUND INFORMATION GIVEN TO STUDENTS

Background information about the student (to be read out to groups A and B)

My name is Helen Walmsley and I am studying at Edith Cowan University. Your parents, teachers and Principal have given me permission to come and talk to you. I am interested in finding out what things students in Year 7 take into account when they choose their friends, because your ideas will help schools when they have to group students into different classes or work groups.

I am going to show you a slide and tell you some background information about a student. I will then give you a questionnaire to complete. I do not need your name on the questionnaire, so I want you to answer with your true feelings for each of the statements about the student. There are no right or wrong answers, as all students have different ideas about who they want as friends.

If you do not want to complete the questionnaire, you may go to the _____, where Mrs Bowden will supervise you while you do some silent reading.

This is a picture of Sarah Jenkins.

Sarah is coming to live in Albany, and will be enrolled at this school. Sarah will turn 12 in June, and is in year 7 at her school in Perth. Sarah's dad is an electrician with Western Power and has been transferred to Albany. Her mum works part-time in a deli. Sarah has a brother called Peter who is in Year 8, and a sister named Claire who is in Year 4.

Sarah enjoys horse riding, swimming, playing on the computer, watching the football, and eating junk food. Sarah is learning to play the guitar. She has a pet cat called Fluffy and a golden retriever named Max.

Sarah wants to be a computer programmer or play in a rock band when she leaves school.

I am now going to give you a sheet to fill out. **DO NOT** put your name on the sheet.

Please put the letter ____ in the space for group number at the top of your sheet.

Please circle whether you are a boy or a girl.

Look at the first statement. *How would you feel if Sarah sat next to you in class?* If you would be very unhappy or very uncomfortable, circle *very unhappy*. If you would be unhappy or a little uncomfortable, circle *unhappy*. If you don't really mind or care whether she sits next to you or not, circle *neutral*. If you would be happy or comfortable if Sarah sat next to you, circle *happy*. If you would be very happy or very comfortable if Sarah sat next to you, circle *very happy*. Does everyone understand how I want you to answer to statements? Good.

Now I want you to read all the other statements, and answer them in the same way. Circle the response that **BEST** describes how you would feel. There are no right or wrong answers so please answer as truthfully as possible, and don't worry about what anyone else has put down. Remember, I don't need to know who you are.

Please start now.

Background information about the student (to be read out to groups C and D)

My name is Helen Walmsley and I am studying at Edith Cowan University. Your parents, teachers and Principal have given me permission to come and talk to you. I am interested in finding out what things students in Year 7 take into account when they choose their friends, because your ideas will help schools when they have to group students into different classes or work groups.

I am going to show you a slide and tell you some background information about a student. I will then give you a questionnaire to complete. I do not need your name on the questionnaire, so I want you to answer with your true feelings for each of the statements about the student. There are no right or wrong answers, as all students have different ideas about who they want as friends.

If you do not want to complete the questionnaire, you may go to the _____, where Mrs Bowden will supervise you while you do some silent reading.

This is a picture of Sarah Jenkins.

Sarah is coming to live in Albany, and will be enrolled at this school. Sarah will turn 12 in June, and is in Year 7 at her school in Perth. Sarah's dad is an electrician with Western Power and has been transferred to Albany. Her mum works part-time in a deli. Sarah has a brother called Peter who is in Year 8, and a sister named Claire who is in Year 4.

Sarah was involved in a car accident when she was two years old. This resulted in her being paralysed from the waist down and, as a result, she cannot walk. Sarah therefore uses a wheel-chair to move around.

Sarah enjoys horse riding for the disabled, swimming, playing on the computer, watching the football, and eating junk food. Sarah is learning to play the guitar. She has a pet cat called Fluffy and a golden retriever named Max.

Sarah wants to be a computer programmer or play in a rock band when she leaves school.

I am now going to give you a survey form to fill out. **DO NOT** put your name on it.

Please put the letter ___ in the space for group number at the top of your sheet.

Please circle whether you are a boy or a girl.

Look at the first statement. *How would you feel if Sarah sat next to you in class?*

If you would be very unhappy or very uncomfortable, circle *very unhappy*. If you would be unhappy or a little uncomfortable if Sarah sat next to you, circle *unhappy*.

If you don't really mind or care whether she sits next to you or not, circle *neutral*. If you would be happy or comfortable if Sarah sat next to you, circle *happy*. If you would be very happy or very comfortable if Sarah sat next to you, circle *very happy*.

Does everyone understand how I want you to answer to statements? Good.

Now I want you to read all the other statements, and answer them in the same way.

Circle the response that **BEST** describes how you would feel. There are no right or

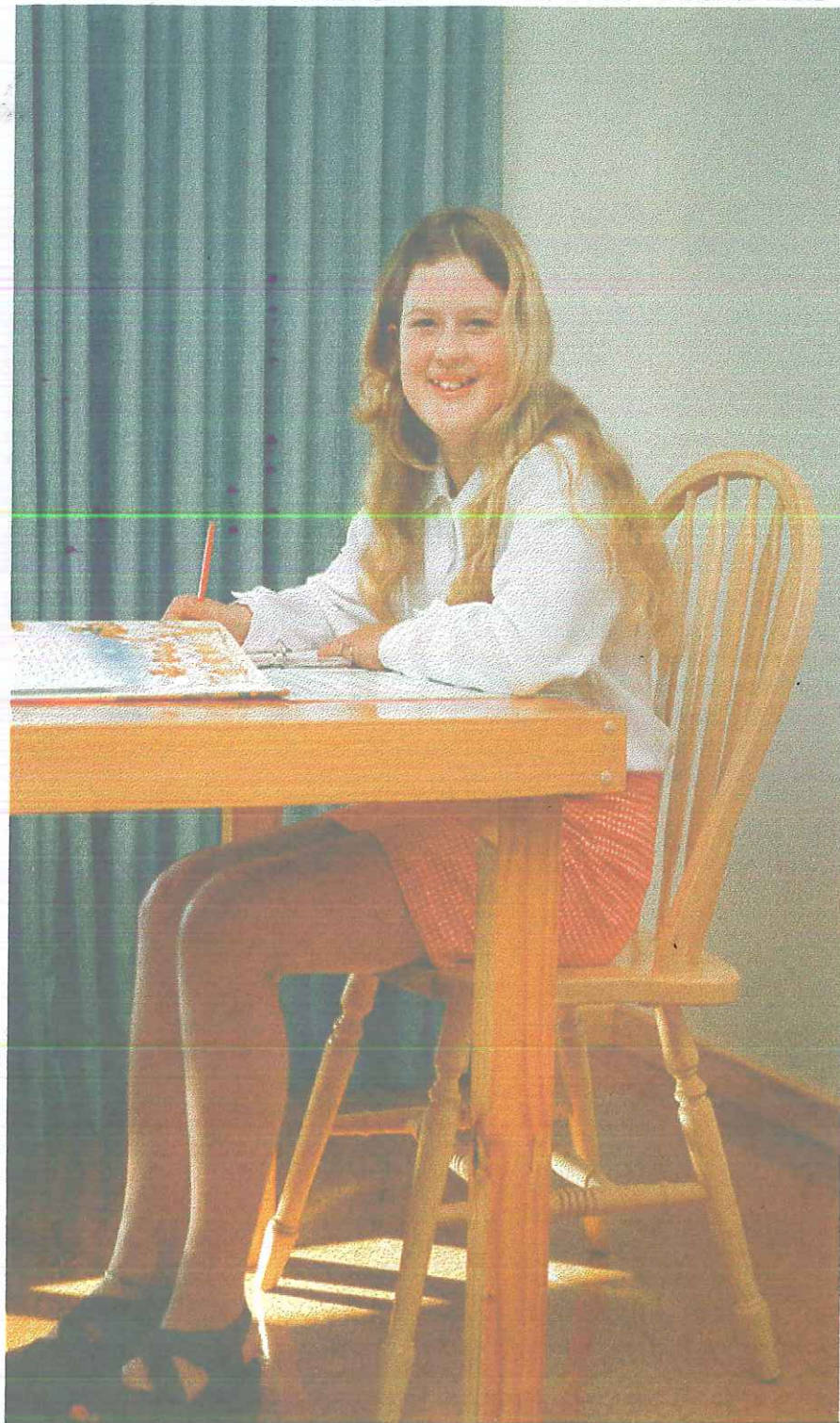
wrong answers so please answer as truthfully as possible, and don't worry about what anyone else has put down. Remember, I don't need to know who you are.

Please start now.

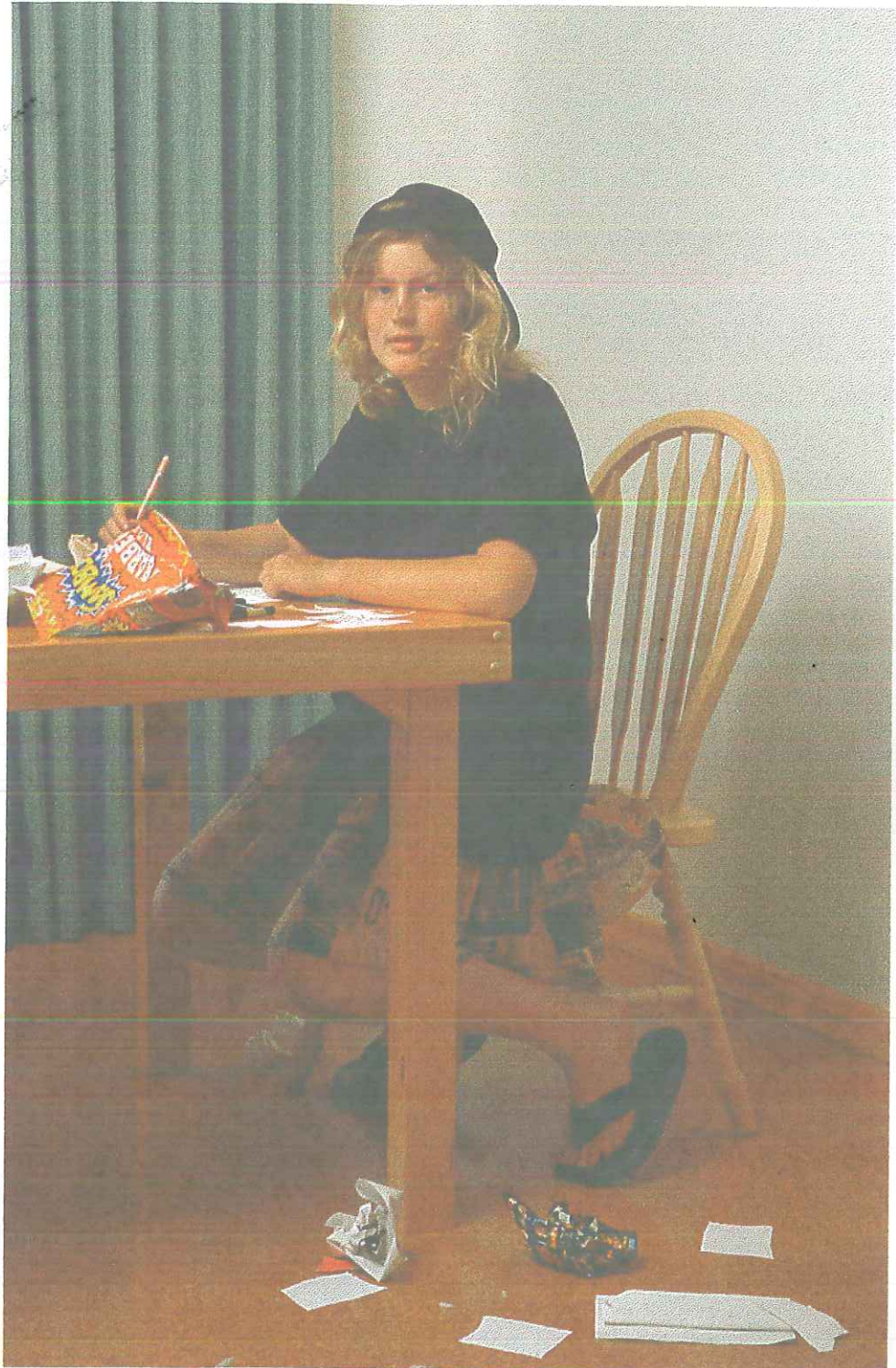
APPENDIX D

PHOTOGRAPHS OF THE TARGET STUDENT

PICTURE A: ATTRACTIVE AND NON-DISABLED



PICTURE B: UNATTRACTIVE AND NON-DISABLED



PICTURE C: ATTRACTIVE AND DISABLED



PICTURE D: UNATTRACTIVE AND DISABLED

